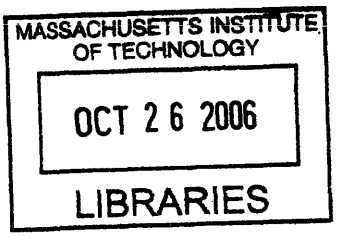
The Politics of Consensus-Building:
Case study of diesel vehicles and urban air pollution in South Korea

by
Dong-Young Kim

Master of Environmental Management
Yale School of Forestry and Environmental Studies
New Haven, Connecticut (2001)

Submitted to the Department of Urban Studies and Planning
in partial fulfillment of the requirements for the degree of
Doctor of Philosophy in Public Policy and Environmental Planning



at the
MASSACHUSETTS INSTITUTE OF TECHNOLOGY
September 2006

© 2006 Dong-Young Kim. All Rights Reserved
The author here by grants to MIT the permission to reproduce and to distribute publicly paper and electronic copies of the thesis document in whole or in part.

ARCHIVES

Author _____
Dong-Young Kim
Department of Urban Studies and Planning
August 4. 2006

Certified by _____
Professor Lawrence Susskind
Department of Urban Studies and Planning
Thesis Supervisor

Accepted by _____
Professor Frank Levy
Department of Urban Studies and Planning
Chair, Ph.D. Committee

The Politics of Consensus-Building: Case study of diesel vehicles and urban air pollution in South Korea

by
Dong-Young Kim

Submitted to the Department of Urban Studies and Planning on August 4, 2006
in partial fulfillment of the requirements for the degree of
Doctor of Philosophy in Public Policy and Environmental Planning

ABSTRACT

Look at the three efforts to resolve public disputes over diesel passenger cars and urban air quality management in South Korea, this dissertation explores the main obstacles in nascent democracies to meeting the necessary conditions for successful dispute resolution prescribed by Western scholars of consensus-building theory and practice. The first two cases did not resolve the disputes, even though they produced a consensus agreement through deliberation. The agreements were challenged and adjusted through regulatory processes. This type of unstable consensus building is regarded as one of pathologies of consensus building efforts in regulatory decision-making. This paper analyzes why this problem happened, with the new analytic framework, which incorporates Kingdon's multiple stream framework and the theory of consensus building.

This paper found that the final dispute resolution was made in conventional politics stream by adversarial power game in politics rather than in consensus building stream. Most cases did not have necessary factors for successful consensus building effort. Most of all, the first two consensus building efforts were strategically initiated by policy entrepreneurs, who were not neutral in managing many other necessary factors of successful consensus building. As a result, the efforts of dispute resolution were actually the processes of conflict expansion rather than the authentic consensus building efforts. Non-neutral deployment of consensus building efforts was manifested in idiosyncratic features of policy process and politics in South Korea. Policy entrepreneurs strategic motives were a reaction to the unbalanced representation of weak environmental rationales in the existing policy making process of multi-level policymaking venues. Thus, main obstacles to successful consensus building in nascent democracies exist in institutional levels, which play against the neutral initiation of consensus building efforts. One way to secure the neutrality is to develop a new type of entrepreneurs, so-called 'consensus-building entrepreneurs.'

Dissertation supervisor: Lawrence Susskind
Title: Ford Professor of Urban and Environmental Planning

TABLE OF CONTENTS

List of Figures

List of Tables

List of Boxes

Acknowledgments

This doctoral dissertation is dedicated to the life and memory of my father-in-law, Mr. Hyun Kye Hwan, who untimely passed away from liver cancer, right before I passed the doctoral dissertation defense in the spring of 2006. He always encouraged my research effort and was proud of his son-in-law, who would get a Ph.D. from MIT. Even in pain, he worried that his illness might prevent me from concentrating on my writing dissertation. So, I lied to him that I already passed a doctoral defense in order to ease his pain and concern. Now, finally, I can talk to him in heaven about my dissertation more proudly and sincerely.

I thank God for leading me until now and for his promise to lead me farther for his purpose. He has positioned me in God's times, with God's people and in God's ways. Many important people and critical events in my life have been woven into a miraculous path for me by God. First of all, He helped me meet my advisor, Professor Lawrence Susskind at MIT. While I troubled over a financial support for my doctoral study at MIT even with an admission letter in 2001, Professor Susskind kept encouraging me to find sources in and outside MIT. With his on-going encouragement, I even dared to write a letter to the President of South Korea. Professor Susskind helped me to understand the maxim, "Heaven helps those who help themselves." Also, he has always been responsive to my questions and given me the best answers all the time. He challenged me to articulate my thinking more clearly, provided me with insights into public dispute resolution, and gave detailed comments on my earlier drafts and manuscripts. To him, I owed an enormous intellectual debt during my stay at MIT and I am still receiving wise counsels at various points in every chapter of my life after MIT. So, I am eternally grateful for his wonderful and gracious advises that I, as an assistant professor now, would like to emulate for my future students.

With my undergraduate background of atmospheric science and Larry's encouragement, I finally found a wonderful interdepartmental project in MIT, so-called, "Integrated Program on Urban, Regional, and Global Air Pollution: The Mexico City Case Study," which was spearheaded by the Nobel Prize winner, Professor Mario Molina and Dr. Luisa Molina, a program director of the project. They kindly provided essential financial backing for four years during my stay at MIT and warm encouragement for my academic activities, such as developing a simulation game of negotiated rulemaking. During my research at the project, I also borrowed ideas and insights from wonderful colleagues, especially, Javier Warman, Rebecca Dodder, Steve O'Conner, Ali Mostashari, Jed Horne, and Andres Montalvo. I would like to thank them.

Without their support, I would have never been in my current position. This project provided a starting point for my doctoral research and played a pivotal role in finding a case for doctoral dissertation. My research interest in the project helped me find real case study of public disputes on urban air quality management in South Korea and spurred me to follow the case thoroughly.

I would like to thank the other two wonderful dissertation committee. Professor Joseph Sussman from MIT that I met in the Mexico City Project too, added invaluable insights and time into this work. He led me to explore what I missed in my case study. His compliment on my research on the result of simulation game exercise in Mexico City was a great encouragement during my study at MIT. Professor Miranda Schreurs from the University of Maryland kindly accepted my request to be my dissertation committee. As an expert on environment and politics in East Asia, she has been very instrumental in helping me reflect upon large-scale political process in public dispute resolution in South Korea. I was blessed in working with great supervisors on my doctoral work.

I cannot miss remembering my colleagues in DUSP, MIT. They gave me strength, when I was weak, gave me smile when I was sad, became companies among other during our journey at MIT. I especially thank Pia Kohler, a school mate from the Yale School of Forestry and Environmental Studies. She informed me of the Environmental Policy Group, Professor Susskind at MIT, while I was searching for a doctoral program. For almost seven years, we helped each other and I hope we will meet again somewhere. In the same way, I am grateful to my colleagues, Engkyoon Lee, Tina Rosan, Nancy Odeh, and Masa Matsuura, Catherine Ashcraft, Anjali Mahendra, and Erik Neilson.

I would like to thank Sossi Aroyan at Consensus Building Institute, who helped me so many times when I was at a loss during my stay at MIT. I will never forget her cheerful encouragement with a small cup of coffee when I visited the CBI for the first time in order to be interviewed by Professor Susskind for doctoral admission. She helped me to find and meet Professor Susskind, to locate appropriate articles, and most of all, she treated me and my family like her own family members. I especially thank her for her love for my daughter Sooahn.

My dissertation would never have left the ground without the insights of 30 active participants in the consensus-building processes in my case studies. They kindly provided data and documents and endured more than two hour-long interviews. Especially, I thank Mr. Koh Yoon-Hwa from the Ministry of Environment, and Mr. Seo Wang-Jin from the Citizens' Movement

for Environmental Justice for sharing their experiences so deeply. Also I am grateful to other interviewees from the Ministry of Commerce, Industry, and Energy, the Ministry of Finance, Hyundai Motors, various oil industries, and professors as experts.

Finally, my acknowledgements return to my family members. How could I fathom the love and support from my family? I know my father, mother, and parents-in-law in South Korea always prayed for me studying abroad. They supported me financially, and emotionally. I could stand up again with their support. Lastly, I am eternally in debt to my wife, Younsun, who sacrificed herself to support me through an experience that was much longer and harder than we had ever expected. She has always been the wind beneath my wings. And I am also grateful to my daughter, Sooahn, who gave me the reason to muscle up the final stage of my writing dissertation. Her beautiful smiles when I got home have been a great gift and healing power to get rid of every stress during my stay at MIT.

Chapter One

Introduction

Air pollution poses a serious threat to public health in major urban areas of the world because a ubiquitous feature of urban life is exposure to a complex mixture of air pollutants produced by the combustion of fossil fuels for transportation, power generation, and industrial activities (Holman, 1999). Some scientists estimate that urban air pollution is killing some 800,000 people annually worldwide (Kenworthy and Laube, 2002).

The majority of this appalling number of victims is largely found in major cities in rapidly developing countries, especially in Asia (Figure 1-1). Generally speaking, rapid urbanization and motorization are regarded as the major forces driving severe urban air pollution in these countries.[1]

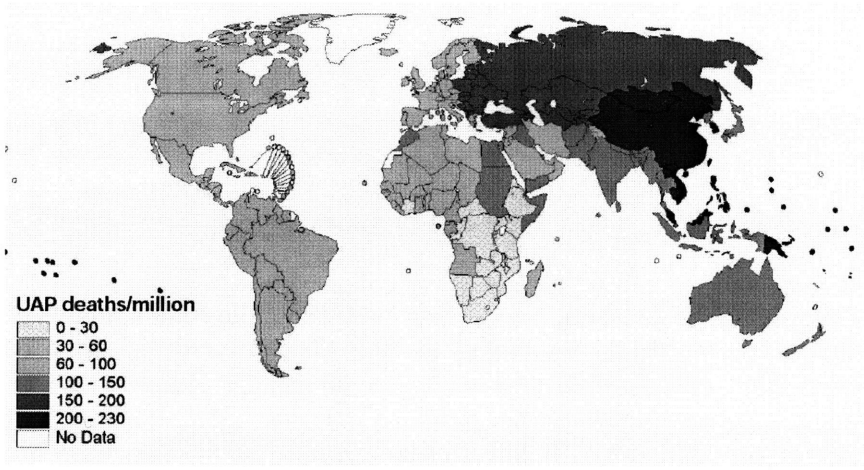


Figure 1-1. Deaths from Urban Air Pollution (Source: WHO, 2005)[2]

[1] By the year 2025, it is estimated that 80% of 5 billion urban dwellers over the world will live in the developing countries (UN, 1996). In China, a tripling of the vehicle fleet was expected in the decade 1990 to 2000 (Faiz, et al., 1990).

[2] For a graph of UAP deaths, see the webpage http://www.who.int/heli/risks/urban/urbanenv/en/. The data is

Despite their common problem, each of these rapidly developing countries demonstrates different compositions of air pollution sources; the condition of each city's air is a function of economic, social, and technological factors.[3] Approaches to managing each instance of urban air pollution should be tailored to those factors in each country. In general, the problem is complicated by the fact that financial, institutional, and technical constraints in developing countries make management far more difficult than it is in advanced countries (Blackman and Harrington, 1998).

However, regulators faced with the daunting task of crafting effective regulatory regimes for urban air pollution in rapidly developing countries have at least one advantage over their historical counterparts in the wealthy advanced countries, such as North America and Europe. Several decades of environmental regulatory history[4] in the advanced countries offer officials in developing countries a range of examples and lessons that enable them to make decisions more quickly and perform more effectively[5] (O'Connor, 1994; Hettige et al., 1996; Blackman and

---

estimated from the WHO's World Health Report (2002). For both mortality and morbidity of air pollution, the measure of particulate matter (PM) has been used as the best overall indicator in many epidemiological studies from around the world (California Air Resources Board, 2002).

[3] In India, for example, two- and three-wheeled vehicles, such as motorcycles and scooters, accounted for over 70 percent of the registered motor vehicles in 1996, and they were usually aged and ill-maintained (Ministry of Surface Transport, India, 1997). Also in China, two-wheeled vehicles accounted for over 60 percent of the registered motor vehicles in 1995. But, at the similar period, South Korea, a middle-high income country, had fostered its own auto industries to produce private vehicles with four wheels, which accounted for more than 60 percent of the registered motor vehicles (AMA, 1998). In terms of fuel consumption and fuel quality, developing countries also show different characteristics. In case of China, as the world's largest source of coal, there are serious amounts of Sulfur dioxide (SO_2) emissions from coal combustion, which accounts for more than 70 percent of fuel consumption in China (Tang, 2004). Most countries in Asia phased out leaded gasoline, but Bhutan, Cambodia, and Indonesia still use leaded gasoline, which contributes to the high level of lead in the air (UNEP, 2005).

[4] The advanced countries took seriously the episodes of catastrophic disasters, such as Donora Smog in Pennsylvania of 1948, and London Fog of 1952, and managed to passed clean air legislations and other regulatory actions aimed at reducing ambient air pollution from energy, industry and transportation sectors in their urban areas. However, the US Environmental Protection Agency (EPA) estimated that 129 million people live in areas that violated National Ambient Air Quality Standards (EPA, 2002), nearly half the 280 million people in the U.S. According to monitoring data gathered in 2000, approximately 52 million people lived in 30 metropolitan statistical areas where the highest second daily maximum concentration violated the ozone NAAQS threshold of 0.12 ppm averaged over one hour (EPA, 2002).

[5] According to Iwami (2004), in large East Asian cities, despite rapid economic growth, air pollution is less severe

Harrington, 1998; Iwami, 2004).

The lessons distilled from the experience of those advanced countries, however, have been mainly related to regulatory instruments, analytic tools, problem definitions, policy goals, and strategies. In addition, academic discourse on urban air pollution has been dominated by scientific and technical knowledge (Heymann, 2004)[6] describing the complexity of urban air pollution problem. Air pollutants from a huge and varied number of mobile sources, as well as factory stacks, don't observe jurisdictional boundaries. Furthermore, emission reductions are the function of air pollution control policy, energy prices, economic activity, technological change, and weather patterns (Portney, 1990).

In acquiring this knowledge, regulators and experts in developing countries gain the ability to develop emission inventories, enhance air quality monitoring, and establish integrated assessment modeling by benchmarking the systematic ideas and the practices of urban air quality management (UAQM) of advanced countries. These capacities can then be adapted to the specific economic and technical situations in a developing country. Common approaches vary from command-and-control regulations, such as technology forcing and standards setting for fuel quality, industry emissions, and auto emissions to market-based mechanisms, such as emission trading and environmental taxation. In practice, many rapidly developing countries have already adopted the efforts of advanced countries to phase out leaded gasoline, install catalytic converters in cars, and place desulfurization units in their stacks.[7]

---

than it was Japan in the early 1970s in terms of SO_2 emissions.

[6] Hyemann investigated the number of research projects on air pollution in Germany in the period 1974-1995, funded by the German Federal Environmental Agency in engineering, the natural, and the social sciences. Approximately 64% (3,215) of all projects were in engineering, approximately 34% (1,713) in the natural sciences, and only approximately 1.5% (68) in the social sciences. The status of research efforts in other countries is not likely to be different from this German case.

[7] In general, reduction of SOx, CO, and lead in the air was followed by reduction of NOx emissions due to cost-effective measures. Measures to reduce SOx emissions include 1) switching to fuel with low sulfur content, 2)

However, another important but overlooked lesson from the regulatory history of advanced countries is about the contexts of learning,[8] especially the relationships among actors and other institutional aspects of policy processes. Officials in rapidly developing countries with severe air pollution need to know not only what the regulatory approaches are, but also how various policy actors must work together to formulate and implement them.

The history of urban air pollution policy making in advanced countries shows that it is a quite complex political as well as technical challenge. Many stakeholders compete to produce a policy outcome favorable to their own interests. This process can lead to complicated disputes among stakeholders.

Consider the issue of regulating NOx emissions from heavy-duty diesel engines in the United States (Morris et al., 2004). Based on positions taken by various groups, we can predict that legislative or administrative consideration of the problem will draw proposals from several special interest groups.

For example, engine makers argue that the best way to reduce pollution is to mandate cleaner fuel. Fuel refiners will resist this suggestion, insisting that improved engine design offers cheaper ways to obtain reduced pollution. One set of environmental pressure groups focused on global warming advocates technologies, including reliance on diesel, aimed at reducing greenhouse gas emissions as the top priority, while another group concerned about particulate emissions rejects that technology. Natural gas producers will lobby for increased use of their product as an alternate to diesel. Railroads will seek rules that will reduce the use of

---

desulturization of crude oil, and 3) end-of-pipe desulfurization. A shift to fuels with low sulfur content is less expensive and, accordingly, more easily undertaken. Conversion of fuel makes no sense in the case of NOx, which is generated by the oxidization of nitrogen in the air. Measures to control automobile emissions were developed in accordance with strict environmental standards.

[8] In his work on environmental policy in the Netherlands, Pieter Glasbergen (1996) proposes the learning model as a supplementary perspective to enhance our understanding and to chart a path for the future. He stresses two aspects of learning on his approach. First is about *what is learned* and Second, *the contexts of learning.*

long-distance trucks using heavy-duty engines of any type. Domestic trucking concerns will point to Mexican trucks entering the U.S. as a more important source of pollutants than domestic trucks and urge restrictions.

The EPA's air programs office argues for fuel additives to reduce emissions, but the EPA's ground water office opposes some additives as potential ground water contaminants. The Office of Management and Budget criticizes proposed actions as too expensive. The trucking industry warns of lost jobs from higher costs. Retailers and just-in-time manufacturers resist regulatory measures that increase trucking costs on the grounds that it will cause a general economic slowdown. In many cases, these various special interest groups credibly claim to be serving the public interest, despite the obvious disagreement among them about what the standard should be. Some of their disputes are factual but difficult to resolve.

In the United States, a model of pluralistic democracy, regulatory processes for urban air pollution have often been difficult and adversarial. The imposition of strict emission standards and ambitious technology-forcing stipulations resulted in harsh resistance from business interests, including automakers and utility industries, and led to bitter disputes among stakeholders, more specifically, between economic development and environmental concerns (Sabatier, 1988). This adversarial relationship among stakeholders produced very lengthy disputes escalated by stakeholders' adversarial activities, such as political lobbying and legal actions. Not surprisingly, in the mid 1980s, it was estimated that 80 percent of all major environmental rules issued by the Environmental Protection Agency (EPA) were litigated in lengthy court battles that are the stuff of legend in environmental politics (Ruckelshaus, 1985).

What they learned from their own regulatory failures and from those of other countries

was that government should take a collaborative and participatory approach[9] that would bypass adversarial interest group politics and technocratic insular public administrations (Fredrickson, 1999; Fiorino, 2001; Fung, 2002). The EPA has tried to draft regulations that are both workable and effective by experimenting with a new regulatory method, "regulatory negotiation," to build consensus among stakeholders (Harter, 1982; Susskind and McMahon, 1985).

While benchmarking substantive air pollution regulations of the advanced countries, such as the United States, or particularly of California, rapidly developing countries might also investigate how they might avoid costly policy disputes. What can they learn from the experience of the United States and other advanced countries in terms of public dispute resolution around urban air pollution?

As Lowi (1972) argues, the contents of a policy, or more appropriately, the expectations for a certain set of policy outcomes, will determine the politics surrounding the decision-making process by determining the arena in which conflict will arise and consensus be reached. Some scholars of comparative politics have argued that European countries such as the United Kingdom and Sweden, have experienced much less conflict in their regulatory processes for urban air pollution than the United States because their approaches demanded less than those of the U.S. (Lundqvist, 1980; Vogel, 1986). They argued that because the demands were perceived as reasonable, European industries were more likely to comply with environmental regulations.

---

[9] According to the proponents of this alternative mode of decision making (Harter, 1982; Barber, 1984; Moore, 1986; Kasperson, 1986; Susskind et al., 1987, 1996, 1999; Carpenter and Kennedy, 1988; Cohen, 1989; Fiorino, 1990; Ostrom, 1990; Ozawa, 1991; Renn, Webler and Widemann, 1995; Daniels and Walker, 1996; Freeman, 1997; Healey, 1997, 1998; Dorf and Sabel, 1998; Sabel, Karkkainen, and Fung, 2000; Booher and Innes, 2002; Connick and Innes, 2003; O'Leary and Bingham, 2003; Fung, 2004), the alleged benefits of collaboration include informational advantages, innovation in the methods of public problem solving, political empowerment of the stakeholders, dispute resolution, joint learning, and enhancement of trust, implementability, legitimacy, fairness, and efficiency.

However, the characteristics of a policy process may hinge on the extent to which they involve democratic structures (Horowitz, 1989).[10] A country with an authoritarian regime may not demonstrate much apparent resistance from regulated entities against any strict regulations, hence little dispute. Even in a pluralistic democracy, absent an array of interest groups, social movements, or perhaps cross-cutting networks of professionals and officials in adversarial arenas of the policy process (Helco, 1978), policy making is less likely to be challenged and some interests are more likely to prevail by capturing the policy subsystems most vital to them (Fung, 2002).

Samuel Huntington (1991) contends that there is currently a widespread international push toward democracy, called the "third wave," in many rapidly developing countries stimulated by their burgeoning economies.[11] Economic advancement has raised standards, levels of education, and urbanization while also raising civic expectations and the ability to express them[12].

Therefore, learning from advanced country experience about how to make more effective, fair, wise, and efficient regulatory decisions are the timeliest and the most relevant learning rapidly developing and newly democratized countries should seek. They are not only facing serious urban air pollution requiring appropriately tough measures, but also experiencing a

---

[10] In the case of the policy process in developing countries, Horowitz (1989) made several observations cautiously. First, many developing countries have a large state structure, which means that the state is inordinately important as compared to the society. Second, there are often large groups of people excluded from participation in the policy process. Third, the mode and channels of participation are often less well established or clearly circumscribed. Violence, for instance, may play a larger role. Fourth, in developing countries, less weight is given to expert knowledge before decision-making.

[11] The relationship between environmental quality (air pollution) and economic development is discussed by Environmental Kuznet Curve (EKC) (Shafik, 1994; Seldon and Song, 1994; Grossman and Krueger, 1995). The hypothesis of the EKC states that the quality of the environment initially deteriorates with rising income, but later, after income reaches a certain level, it begins to improve again. One of factors to explain the EKC is that, with higher income, citizens become more aware of issues other than immediate material survival and induce their governments to introduce stricter environmental regulation, hence more likely disputes between environmental concern and economic development.

[12] Some critics argue that institutional capacity for environmental governance is a better indicator for environmental quality improvement than the level of income in the EKC model (Esty and Cornelius, 2002). They also argue that significantly-improved governance is possible in poor countries. Thus, citizens of poor countries do not necessarily face a long wait for major improvements in air quality (Dasgupta et al., 2004)

drastic increase in public disputes, due to enhanced political freedom.[13]

While it is natural for a newly democratized society to seek lessons for better dispute resolution from the experiences of forerunners, it is important to understand why it is difficult for the society to utilize such lessons. In other words, ***what are the main obstacles[14] in nascent democracies, at both the personal and institutional levels, to meeting the necessary conditions for successful dispute resolution in response to urban air pollution?*** Answering this question requires knowledge of the decision-making process, political culture, and actors which may be different from those in the Western democracies.

In addition, if there is a successful case of resolving an urban air quality dispute through collaboration in a nascent democracy, how was the society able to achieve it? Only by answering these two questions can one then discuss more meaningfully ***how a newly democratized society can improve its consensus-building efforts in urban air pollution regulatory decision making.***

The descriptive and normative questions above are not addressed adequately in the literatures of political science, public administration, or policy making for planning. There are too few empirical cases--failures or successes--of consensus building in newly democratized societies.

---

[13] In practice, many developing countries in the world are beginning to capitalize on and apply what has been learned in the United States (Susskind, 2006). Alternative Dispute Resolution (ADR) procedures seem to have very successful in the USA and in Canada (Bingham, 1986; Goldberg, Sander, and Rogers, 1992), while so far they have not been widely used in Europe (Weidner, 1998).

[14] Apparently, a newly democratized country lack much experience of public participation and collaboration, as well as relevant resources, such as supportive legal infrastructure, and third party experts in facilitation and mediation. Thus, experiments of collaboration in fledgling democracies are more likely to fail to meet those prescribed preconditions for successful consensus building in public policy making, hence the symptoms of the very pathologies of consensus based rulemaking claimed by the skeptics. On the other hand, in the United States, after a decade or more of experiments at the U.S. Environmental Protection Agency and the U.S. Army Corps of Engineers, among other agencies, Congress passed twin amendments to the Administrative Procedure Act and then made them permanent in 1996: the Negotiated Rulemaking Act of 1996 ('NRA,' 5 U.S.C. §§561, et seq.) and the Administrative Dispute Resolution Act of 1996 ('ADRA,' 5 U.S.C. §§571, et seq.) (Bingham and O'Leary, 2004).

South Korea is an exemplary country from which to gain insight into these questions for three reasons:

First, it is a leading rapidly developing country:[15] Since the early 1960s, South Korea has achieved an incredible record of growth and integration into the high-tech, modern world economy. Four decades ago, South Korea's GDP per capita was comparable to levels in the poorer countries of Africa and Asia. In 1996, South Korea joined the OECD, and in 2004 entered the trillion-dollar club of world economies. Today, its GDP per capita of $20,400 is equal to the lesser economies of the European Union (CIA, 2005). Also, South Korea has incubated globally important automakers, such as Hyundai, KIA, and Daewoo, and became the fifth-largest car-producing country in the world in 1996. These auto industries have been the backbone of the South Korean economy.

Second, South Korea has a serious urban air pollution problem: The astonishing success of South Korea's international development, however, has come with a price. In 2002, South Koreans were shocked to learn that the World Economic Forum had ranked South Korea 135th among 146 countries in terms of the Environmental Sustainability Index. Among the categories in the index, South Korea's air quality was ranked 120th among 122 countries (World Economic Forum, 2002).[16] This shameful record could be traced to rapid urbanization and the exponential growth of the vehicle fleet.

From 1970 to 1990, the population of Seoul, the capital of the nation, more than doubled, reaching a panic-inducing 10 million. From 1990 to 2000, the population of the Seoul

---

[15] For the status of South Korean economy in international stage, it is hardly deniable that the Korean economy with a per capita income of $19,200 in 2004 is aiming at the certain level of advanced countries, beyond the title of 'developing' country. But, still South Korea is well known as one of 'Newly industrialized countries' or 'NICs,' rather than an 'Advanced country.'

[16] Although Korea advanced itself to 122nd from 135th among 146 countries in the 2005 index, Korea still ranked the worst among all the 29 OECD (Organization of Economic Cooperation and Development) countries in the list. (World Economic Forum, 2005).

metropolitan area, covering 12 percent of the nation's entire area, increased by 20 percent to almost 22 million, accounting for 46 percent of all South Koreans. More impressively, the number of vehicles in the Seoul metropolitan area increased by 211 percent from 1.8 million in 1990 to 5.6 million in 2000 (Ministry of Environment, Republic of Korea, 2004).

Third, South Korea is a newly democratized country:[17] Korean economic success is based on the developmentalist paradigm, propagandized by repressive military regimes since the mid-1960s (Moon and Lim, 2003). Social fatigue stemming from this "growth first, other values later" principle triggered a painstaking and dramatic transition to democracy in 1987 after 25 years of iron-fisted authoritarian rule (Cotton, 1998) as other values, such as environment, economic justice, labor, and anti-corruption, began to compete against the developmentalist paradigm.

South Korea has been quite successful in democratizing its political system[18] and has developed a relatively vibrant civil society in a remarkably short period of time, to the extent that the current administration calls itself the "participatory government." However, it has recently been experiencing a drastic increase in public disputes due to enhanced political freedom. The society has not been ready to handle public disputes in sophisticated ways.

For these reasons, South Korea offers a sort of "natural experiment" through which to analyze how to resolve public disputes among many conflicting interests around urban air pollution within the capacities of a newly established democracy, and to compare theory to practice. A case study of an attempt at consensus building in resolving a public dispute in a

[17] In general, newly democratized countries are rapidly developing countries, which lead the third world countries in East and Central Europe, Asia, and Latin America. Those countries may include Poland, the Czech Republic, Bulgaria, Hungary, Greece, Russia, Ukraine, Lithuania, South Korea, Taiwan, Indonesia, Thailand, Mexico, Chile, Guatemala, South Africa, and so forth.

[18] According to Freedom house (2005), South Korea belongs to the group of countries with highest political freedom.

fledgling democracy (whether the attempt succeeds or fails) could be very useful for decision makers in nascent democracies all over the world.

The next section includes descriptions of cases of public dispute resolution efforts around urban air quality management in South Korea. Examination of these cases suggests two case-specific questions applicable to more general questions about dispute resolution in newly democratized countries.

Dispute resolution efforts around urban air pollution in South Korea

The story began in early 2002. During that time, urban areas in South Korea were suffering from serious air pollution as were urban areas in many rapidly developing countries. Air quality in the Seoul Metropolitan area was particularly serious due to the concentration of economic growth and rapid motorization in the capital city.

While some pollutants, such as sulfur dioxides (SO_2), carbon monoxide (CO), and lead (Pb) had been successfully reduced by government efforts, levels of nitrogen oxides (NO_2), particulate matter (PM), and ground level ozone (O_3) in the air remained high and had even increased in the area as the growing number of mobile sources led to increased emissions. The high PM level in the air posed a particularly serious threat to urban residents and was attributed to the rapidly increasing number of larger diesel vehicles, such as SUVs (Sport Utility Vehicles) on the streets. At that time, more and more people were buying diesel SUVs, not only because diesel fuels were much cheaper than gasoline, but also simply because more people could afford SUVs as additional vehicles.

The national environmental agency, which had been aware of the seriousness of poor air quality in the metropolitan area, decided it was time to prepare a new, stringent, and long-term policy proposal to tackle metropolitan air pollution. The agency believed that without taking a harsh and urgent step, air pollution would reach disastrous proportions in the metropolitan area in the foreseeable future. The agency, also responsible for regulating emissions from mobile sources, also needed to define measures to deal with increasing diesel vehicles on the roads.

Meanwhile, the major auto industries such as Hyundai and KIA, traditionally the very backbone of the national economy, were hoping to market more private diesel vehicles in the domestic market. They needed a domestic market as a niche, or base camp to nurture their production in preparation for exporting more private diesel vehicles to foreign markets such as the European countries. The current emission standard for private diesel vehicles in South Korea was so tough that the companies could not sell any private diesel vehicles in South Korea. They needed a change. Other industries also argued that the agency's proposals for air quality management in Seoul metropolitan area were too harsh.

Furthermore, national agencies, such as those regulating commerce, industry, construction and transportation, also opposed more stringent proposals by the environmental agency. These other agencies have traditionally been more powerful than the environmental agency, and were defending the status quo, or at the most small incremental change in regulations.

Other important actors were conspicuous. Some media outlets emphasized the seriousness of air pollution by showing photos of brown skies in the metropolitan area. A number of environmental NGOs (Non-governmental organizations) quickly created a coalition and began rallying in the streets to criticize the government and the industries they considered

responsible for the horrible air conditions in urban areas.

On the last day of December 2003, when the chairman of the National Assembly of South Korea banged his gavel down to proclaim the passage of the "Special Act for Seoul Metropolitan Air Quality Management" (the Special Act, hereafter), it meant the resolution of a two-year-long rancorous public dispute involving multiple stakeholders and multiple issues around the regulation of diesel private vehicles and the improvement of air quality in the Seoul metropolitan area.

It was a major success, notable amid an increasing number of costly disputes around many public policy decisions in South Korea. The fact that a Task Force of 15 members including governmental officers, experts from academia, and representatives from non-governmental organizations (NGOs) and business associations reached consensus through a two-month negotiation was heralded, inside and outside the government, as an innovative, successful case of consensus building in public dispute resolution in South Korea[19] (Ministry of Environment, 2004).

In the year prior to this achievement, however, two participatory and collaborative attempts at consensus building had ended in bitter failure. These exacerbated rather than resolved the disputes, even after participants in each effort had declared a consensus (Table 1-1).

Table 1-1. Summary of three cases of dispute resolution efforts

Name	**The Joint Commission**	**The Environment Commission**	**The Task Force**
Period	MAY 24 – SEP 4, 2002	JAN 11 – FEB 8, 2003	JUN 4 – JUL 25, 2003
Issues	*Reclassification of SUVs *Emission standards for	* Emission standards for diesel private vehicles	* Legislation of Special Act for Seoul metropolitan air

[19] The Ministry of Environment (MOE) was awarded as the most effective ministry among all governments by the Prime Minister office in 2004 for its success in making a consensus for air quality management.

	diesel private vehicles *Energy price system	* Energy price system * Energy quality * Legislation of Special Act for Seoul metropolitan air management	management * Conditions to allow the sales of diesel private vehicles * Energy price system
Participation	MOE, MOCIE, Environmental NGO coalition, major Auto makers	MOE, Environmental NGO coalitions, Experts from academic	MOE, MOCIE, MOF, MOCT, NGO coalitions, Experts, Business associations
Result	Near unanimous consensus from the Commission but Dispute was not resolved	Unanimous consensus from the Commission but Dispute was not resolved	Unanimous consensus from the Task Force and Dispute was apparently resolved

Note: MOE: Ministry of Environment
MOCIE: Ministry of Commerce, Industry, and Energy
MOF: Ministry of Finance
MOCT: Ministry of Construction and Transportation

As seen in Table 1-1, the three consecutive cases of dispute resolution differed slightly from each other in terms of issues and participants and occurred under different organizational titles: the Joint Commission, the Environment Commission, and the Task Force. These efforts were related; each case affected that following it. However, as will be shown, those effects were both positive and negative in terms of dispute resolution.

In each of these three attempts, a group of stakeholders was invited to participate, meeting face-to-face with governmental agencies in an effort to resolve disputes and build consensus about how to manage urban air quality. These were the first experiments in participatory planning in the history of urban air pollution regulation in South Korea.

A preliminary review of the three cases suggested two case-specific questions. First, ***why did those first two dispute resolution efforts fail even with apparent consensus through negotiations?*** Second, ***how was the Task Force able to finally resolve the disputes even after they were exacerbated by two previous failures?***

The next chapter includes an examination of the literature on regulatory processes in case of urban air pollution and the recent shift toward more collaboration and stakeholder participation in the advanced countries, especially the United States.[20] The chapter also includes a review of literature on the theory of regulatory negotiation and more specifically the theory of consensus building developed in the United States. This body of knowledge can be used by stakeholders in newly developing countries seeking guidance on how to resolve disputes that arise around regulatory processes.

[20] While some European cases, such as Auto Oil program (1993-1996), play role models of collaboration among stakeholders in urban air quality management for many other countries, I intend to focus more on the US experience for some reasons. First, European regulatory processes have strong trans-national, or international nature, which is distinct from domestic decision making processes in general. The European Union (EU) is increasingly determining environmental policy in its member states. For air pollution from private vehicles, the United Nations Economic Commission for Europe (UNECE) has considered vehicle emission regulation since 1957. During the 1970s, the European Commission, as the policy making bureaucracy that supports the European Union, imposed the UNECE regulations as directives on member countries on a voluntary basis (SEI, 1999). Thus, decision making processes in European cases incurred much more complex structure of disagreement among international government, national governments, several layers of sub-government, and private stakeholders than those of single country context. Second, US regulatory policy has been more ambitious and this has resulted in greater resistance from business than voluntary initiatives, commonly used in European countries, which have often been criticized for being too lenient on industry (Vogel, 1986). For the sake of public dispute resolution, not prevention, US cases can give more tangible lessons.

Chapter Two

Literature review

The history of regulatory processes of urban air pollution in the United States

The enactment of the Clean Air Act in 1970 created the basic framework for air pollution still operative in the United States. During the past three decades, Congress has twice passed major legislation reauthorizing the act; the courts have interpreted its provisions in scores of cases; and the EPA has issued thousands of regulations and enforcement actions under its authority (Coglianese, 2000).[21] Most research into the creation and development of current air pollution regulation and other programs in the U.S. have been based on congressional legislative processes and EPA's rule-making processes.

To obtain a better understanding of the characteristics of decision-making processes associated with the Clean Air Act and its regulations, this section distinguishes three distinctive and overlapping eras[22] in air pollution policy and politics in the United States: the 1970s, the 1980s, and the 1990s. In addition to a highly abbreviated account of the regulatory history of air

[21] The Clean Air Act is a comprehensive Federal law which regulates air emissions from area, stationery and mobile sources. It establishes National Ambient Air Quality Standards (NAAQS), which set maximum pollutant standards. The main pollutants covered by the Act are carbon monoxide, sulfu dioxide, nitrogen oxides, volatile organic compounds and lead. The goal of the Act was to achieve NAAQS in every state by 1975. In 1977, the Clean Air Act was amended and set out new goals for achieving NAAQS since most of the states had failed to meet them by 1975. The 1990 amendment was aimed at addressing issues such as acid rain, ground-level ozone, stratospheric ozone depletion and air toxins which had been previously neglected by the Act. States are permitted to have more stringent standards than the NAAQS but they cannot promulgate weaker standards. The states are required to develop State Implementation Plans (SIPs), which contain a compendium of the regulations that they will implement in order to clean up polluted sites. Individual states are also obliged to include the public through public hearings in the development of each SIP. The EPA must approve the SIPs and, if they are not approved, the EPA can enforce the CAA in the state. The EPA also assists states by providing scientific research and funds to support CAA programs.

[22] I used both Kraft (2000)'s historical framework on U.S. environmental politics, and Fiorino (2001)'s learning model scheme as US environmental policy making as reference.

pollution, the relevant literature applicable to each period is explored in order to reveal the special characteristics of regulatory processes during each period.

Age of strong air pollution policy as technical learning:[23] 1970s

The 1970s in the United States were notable for the extent of public aspirations for environmental quality[24] and bipartisan cooperation on the adoption of new and expansive environmental policies (Kraft, 2000). While the affected industries and all other interest groups had access to Congressional debate, emerging social and political forces[25] helped "policy entrepreneurs"[26] in Congress and the administration to overcome resistance from the regulated industries[27] and pass the 1970 Clean Air Act. According to Fiorino (2001), the Clean Air Act in

---

[23] Fiorino (2001)'s article is based on Pieter Glasbergen's (1996) work on environmental policy in the Netherlands, which distinguish three types of policy learning: Technical learning, Conceptual learning, and Social learning.

[24] Membership in the leading environmental groups had grown significantly following the first Earth Day on 22 April 1970. For example, the Sierra Club's membership grew from 15,000 in 1960 to 113,000 by 1970, and then rose to 180,000 by 1980 (Kraft, 1996). The newly energized and well-endowed environmental lobby was making its presence felt throughout the policymaking venues. The massive countervailing strength and transformative power of the environmental social movement could help to tip the balance toward more environmental goals (Sunstein, 1990).

[25] The effect of this stunning growth in membership was to push the politics in a direction greatly favorable to the policies endorsed by the leading environmental groups. Mounting evidence of environmental degradation, reaching the public through wider media coverage of the issues and through popular books such as Rachel Carson's Silent Spring (1962), propelled the issues to new heights on the political agenda. Public confidence in the federal government, a strong economy, and a skeptical attitude toward the business community reinforced the deep current of new social values and public concern for the environment and public health have been growing throughout the 1960s. Especially, Mobile source regulations were technology-forcing regulations, which did not depend on the industry's current ability to meet the standard. Indeed, the technology forcing approach was the result of Congressional distrust of mobile source manufactures' claims about technological feasibility.

[26] Nixon supported demanding clean air legislation, and even competed with Senator Edmund Muskie (D. –Maine) in offering increasingly stringent proposals on the pending Clean Air Act Amendments in Congress.

[27] During the negotiations of the Clean Air Act (CAA), US industry used several strategies to prevent the legislation from being adopted. One argument was that costs incurred would be too high as compared to the benefits to be accrued, and that the CAA would pose a danger to the whole American economy. In 1970, for example, Ford Motor Company claimed that the CAA could prevent continued production of automobiles and is a threat to the entire American economy and to every person in America (Ford, 1970). Regarding the regulation on lead phase-out in gasoline, the American Petroleum Institute wrote in 1972 that the proposed regulations were without foundation from the point of view of public health hazards (American Petroleum Institute, 1972). In 1990, the National Manufacturer's Association stated that the CAA would put millions of workers at risk, put thousands of small companies out of business, and weaken the American economy and limit its capacity to become energy independent (National Manufacturer's Association, 1990) Major in the arsenal of argument used by industry was the claim that there was not enough scientific evidence of the environmental impacts of the pollutants which were

the 1970s was built upon technical learning.[28] It was characterized by a high degree of technical and legal proficiency, but also top-down adversarial relations among actors. After the passage of the Clean Air Act, the adversarial relationships[29] between regulator and industries led to legal formalization and distrust (Bardach and Kagan, 1982). The newly empowered federal government, particularly the EPA, often battled fiercely with the business community, as well as with state and local officials, as policies were put into effect (Kraft, 2000). The regulated entities, such as industries, were regarded not as participants in policy making but as objects of regulatory authority (Fiorino, 2001).

The scholarly literature on the Congressional legislative[30] and administrative processes of the Clean Air Act in the 1970s identifies the characteristics of the adversarial relationships among actors and tries to understand the processes within various policy-making frameworks. Many scholars framed the Clean Air Act as the subject of intense interest-group struggle[31] at the national level (Steward, 1975; Lowi, 1979; Ackerman and Hassler, 1981) and the local level (Crenson, 1971; Jones, 1975). They regarded the legislation as the product of bargaining

---

to be covered by the Act. This was especially the case before the 1990 amendment, when industry questioned stating that further research was needed before action could be taken. Industry denied the necessary of a Clean Air Act to protect the environment either because it did not perceive any potential environmental harm or because it did not see any correlation between pollution and environmental degradation. Industry denied that air pollution threatened public health and accused the EPA of over-reacting without taking into consideration the effect on industry.

[28] Comparative analyses show that most Western nations initially approached environmental problems through technical learning (Janicke, 1996; Dryzek, 1997). For many years, the United States was an exemplar of technical learning, one that other nations strove to emulate.

[29] Although this adversarial relationship was later seen as a weakness of the U.S. approach, it was deliberately built into the design. Reacting to evidence of industry capture of economic regulators, policy makers designed a system based on "adversarial legalism" (Kagan, 1995).

[30] Case studies of individual statues have tended to dominate the literature on congressional efforts to control air pollution in the 1970s and 1980s (Randall B. Ripley, "Congress and Clean Air: The Issue of Enforcement, 1963 in Frederick N. Cleaveland and associates (eds), Congress and Urban Problems (Washington, D.C.; Brookings, 1996); Helen Ingram 'The Political Rationality of Innovation: The Clean Air Act Amendments of 1970 in Ann F. Friedlaender (ed.), Approaches to Controlling Air Pollution (Cambridge, MA: MIT Press, 1978); Richard E. Cohen Washington at Work: Back Rooms and Clean Air (New York; Macmillan, 1992)).

[31] The pluralist/interest group framework is the policy process model that stresses the importance of interest groups. In this view, legislation might be result of the pressure that interest groups are able to exert on government to deal with a particular problem. According to Latham (1952), what may be called public policy is actually the equilibrium reached in the group struggle at any given moment.

between different interest groups.

Behind the struggles and bargaining lay a core assumption that economic and environmental goals conflict. Opponents of expanded regulation argued that any expenditure on pollution control was a deterrent to economic growth. Advocates of regulation assumed that economic growth translated directly into environmental damage. The policy debate focused on the conflicts between them (Fiorino, 2001).

For example, environmental groups have tried to persuade politicians that air pollution warrants government attention. Business groups have often, though not always, sought to dissuade government from taking action.[32] In fact, auto manufacturers promoted national emissions standards in the late 1960s in order to forestall the introduction of state emission standards (Rose-Ackerman, 1981). Most environmental groups have favored command-and-control regulatory strategies to control air pollution. Business groups have promoted the efficacy of economic incentives (Bailey, 1996).

However, some scholars point to limitations of the pluralist/interest group theory in explaining the early federal environmental statues in terms of conventional interest group politics. They say that no striking imbalance is apparent between the organizational presence of environmentalists and industry in 1970 which might account for the stringent provisions of the Clean Air Act (Elliot et al., 1985). These theorists explain the unfolding of urban air pollution policies[33] as the products of goal-oriented government agency problem solvers (Lundqvist, 1980; Bailey, 1998). These policy makers evaluated different alternatives in terms

[32] See Matthew Crenson, The Un-politics of Air Pollution: A Study of Non-decision making in the Cities (Baltimore: Johns Hopkins University Press, 1971). He analyzes the way in which powerful interests are able to prevent issues that are awkward to them ever reaching the political agenda at all. According to him, US steel in Gary, Indiana was able to affect decision making by the city. He concludes that where cities have powerful polluters, the issue of clean air is unlikely to emerge.

[33] They use institutional rational choice framework as policy process model which places government institutions at center stage and views politicians and bureaucrats as the key actors in determining the supply of legislation.

of their contributions to the achievement of air pollution policy goals.

Bailey (1998) delves into the role of Congress in creating the Clean Air Act. Kraft (1995) argues that legislators supported clean air proposals to enhance their re-election prospects, rather than because they believed in the importance of the issues. Hall (1987) suggests that some legislators can have a strong interest in the issue of air pollution, wish to make a personal mark on policy or simply want to exercise power.

Others try to expand the range of political actors beyond the interest groups or politicians recognized as having an impact on legislative or administrative outcomes (Heclo, 1978; Milward and Walmsley, 1984; Sabatier, 1991). They argue that air pollution control legislation could be explained in terms of the interaction of a range of public and private groups operating within a policy subsystem or network. For example, Sabatier (1991) argues that in the 1970s and 1980s, there were two distinctive advocacy coalitions in operation. He characterizes one of these as the Clean Air Coalition dominated by environmental and public health groups; it promoted a standard environmentalist agenda prioritizing health concerns over economic development. Competing with this group was an Economic Feasibility Coalition which opposed effective air pollution policies. This group was dominated by industrial sources of air pollution, energy companies, their allies in Congress, several labor unions, some state and local pollution control officials, and several economists.[34]

Political conflict and conceptual learning:[35] 1980s

The 1980s and the mid 1990s comprised an era of challenge and partisan conflict over the

[34] But, Sabatier fails to explain why the clean air coalition rather than the economic feasibility coalition should dominate the policy process during those periods (Bailey, 1998)

[35] Conceptual learning: is a process of redefining policy goals and adjusting problem definitions and strategies. Policy objectives are debated, perspectives on issues change, strategies are reformulated. New concepts such as pollution prevention, ecological modernization, sustainability, enter the lexicon.

goals and values of environmentalism (Kraft, 2000). The business community, anchored in concern for efficiency and effectiveness, had greatly improved its lobbying presence in Washington, D.C. They argued that much of the environmental legislation of the 1970s had overestimated the speed with which new technologies could be developed and applied,[36] and underestimated compliance costs and the difficulty of writing standards for hundreds of major industries. In the early 1980s, they were emboldened by the arrival of Ronald Reagan's Republican administration, convinced it had a mandate to reduce government intervention in the economy.

The political battle over how to balance environmental and economic goals became fiercer in the 1980s, when the Republican administration's strategy for legislative change was frustrated by the Democratic Congress. The Reagan administration turned to an administrative strategy of cutting environment budgets, trimming enforcement, instituting cost-based review of agency rules by the Office of Management and Budget, and initiating rules to grant regulatory relief to regulated firms. In this political climate, regulated industries tried to block the implementation of environmental policies, while environmental organizations tried to speed it up. Frequent legal challenges led to a large backlog of cases.[37]

Further technical data was less important to breaking this impasse than were new conceptual alternatives to regulation. Fiorino (2001) comments that, to cope with the difficulty in balancing two apparently irreconcilable goals, policy makers in the 1980s turned to two new

---

[36] Eventually, Nixon had to mollify core Republican constituencies in business and industry, who opposed tough regulations on air pollution. In 1977, the Clean Air Act was amended and set out new goals for achieving NAAQS, since most of the states had failed to meet them by 1975. Dissatisfaction with the air pollution control system grew substantially after the late 1970s. By the late 1970s, the impact of new environmental regulations on the economy began to create a backlash that would reach its full expression in the presidency of Ronald Reagan.

[37] The 1977 Clean Air Act Amendments explicitly required the EPA to substantially tighten diesel emissions standards. Despite the 1977 Amendments requirement of increased regulation, the EPA continued to drag its feet on issuing standards for heavy duty diesels. Ultimately the Natural Resources Defense Council (NRDC) successfully sued to force the EPA to issue final NOx and particulate standards.

approaches. First, they became interested in alternatives and complements to direct regulation. Applied mostly to air pollution, instruments such as emission trading, the bubble policy, and acid rain allowance trading incorporate a system of economic incentives into the existing regulatory framework. These innovations provide some flexibility from the uniformity and technology basis of the technical model by allowing firms to trade pollution-control requirements and distribute costs more efficiently (Hockenstein, Stavins, and Whitehead, 1997).

Second, because part of the evolution from purely technical to conceptual learning is dissatisfaction with adversarial and legalistic processes,[38] there was a growing use of consensus-based processes. The techniques of alternative dispute resolution were applied to a variety of situations[39] (Bingham, 1986), such as regulatory negotiation.[40] The new learning responded to what Philip Harter (1982) called the "malaise" of traditional rule making.[41] Proponents of regulatory negotiation argued that this would reduce litigation over the content of rules, speed rule making, and produce better rules (Harter, 1982) because the negotiation process brings the

[38] Critics point to a number of fundamental limitations of the traditional adversarial approach to environmental regulations. They argue traditional environmental governance is dominated by industrial and environmental special interests, wrought with excessive conflict (Kemmis, 1990; DeWitt, 1994; Shutkin, 2000; Sable, Karkkainen, and Fung, 2000).

[39] There was the steady expansion in the use of consensus-based techniques from a handful between 1974 and 1977 to an average of some 25 each year from 1980 to 1985.

[40] EPA began its Regulatory Negotiation Project in 1983 and its first negotiations in 1984. In this process, agencies, regulated entities, and other interest groups negotiated the content of the rule to be imposed before the agency formally begins the rulemaking process. The first negotiated rulemaking is about noncompliance penalties (NCPs) for heavy duty diesel engines. As emission standards tightened in the 1980s, meeting them became more costly and more difficult for the engine manufacturers. Because failing to meet the standards could result in loss of certification for an engine, a potential death sentence for an engine manufacturer, the engine manufacturers sought flexibility from the EPA in meeting tightened standards. The EPA introduced several provisions allowing delays to accommodate economic circumstances and the need for lead time. The EPA created noncompliance penalties (NCPs) that allowed engine manufactures to continue to sell engine which did not meet emissions standards in return for payment of fines. This provision resulted from the EPA's first use of negotiated rulemaking, with agreement on the rule reached in four months.

[41] Until the 1980s, administrative agencies in the United States carried out their regulatory duties almost entire through traditional rulemaking. Agencies issued written regulations that informed regulated entities how the regulated must conduct various aspects of their businesses. The regulated entities and other interest groups have the opportunity to comment on proposals, interested parties may seek judicial review of the agencies' procedural and substantive compliance with the relevant statutory framework as created by the legislature, and interest groups may seek action by the political branches to alter the agency's actions.

main interest groups touched by a regulation's provisions into direct negotiations with the agency.

Emerging capacity for Social learning: 1990s

Dissatisfaction with the typical adversarial relationships in U.S. environmental regulation was widespread throughout the 1990s (Ruckelshaus, 1998). The EPA had been regularly sued by interest groups over its regulation-by-rulemaking activities, over allegations that the EPA's regulations were too lenient, too strict, or otherwise violate federal law.

However, dissatisfaction stimulates learning (Rose, 1993). While the political battles between environment and economy continued in the 1990s,[42] policy makers searched for lessons to draw from their own experience or that of others to ease disputes around environmental regulations. People turned to the European experience, especially in Scandinavia and the Netherlands, of cooperative, integrated policy systems with a capacity for dialogue.

These systems may be seen in terms of social learning,[43] a process with direct implications for a new concept of democracy (Fiorino, 2001). The shift to social learning depends on the development of relationships among participants; it is characterized by continuous processes of interaction between social actors, groups, and forces and semi-public organizations, institutions, or authorities (Kooiman, 1993). In this model, government, industry, and others share

---

[42] President George H. Bush maintained an executive order mandating cost benefit analysis for new environmental regulations that was first issued in 1981 in the Reagan administration, and he supplemented that process with a new White House oversight body, the Council on Competitiveness. The Council was widely criticized for providing a back door for business groups eager to weaken environmental and other regulatory policies. Clinton as the next President made repeated efforts to work with Congress to reform the major environmental statues throughout the 1990s, but policy gridlock prevailed from 1993 through 1998, and political conditions worsened with the election of a Republican Congress in 1994. The Congress was eager to cut environmental budgets and weaken regulations and the White House was rising to their defense.

[43] Social learning emerged in response to the dynamism of problems and changes in the institutional, political, and physical environment (Kooiman, 1993).

responsibility for achieving policy goals (Ayres and Braithwaite, 1992). For example, industry is given more influence in setting standards and flexibility in deciding how to meet them, but it shares more responsibility with government for achieving goals.

This kind of learning required changes in assumptions about particular roles and relationships among actors, which was not easy. For example, EPA, an institution whose legal mandates and political circumstances had forced it into an adversarial relationship with industry, had to play the facilitator among the very interests whose behavior it had sought to control. The representatives of U.S. industry, far more accustomed to seeing the EPA as an issuer of rules and an enforcer, were asked to sit down cooperatively with that same EPA in a public forum. Environmental groups generally were skeptical of this apparent transformation in the EPA's role and its relationship with industry.

At the heart of social learning in the regulatory process was negotiated rule making. EPA began several experiments with regulatory negotiations in the 1980s and gained supporters within a variety of federal agencies. Finally, negotiated rule making was formalized by the Negotiated Rulemaking Act of 1990, and permanently established by the Administrative Dispute Resolution Act of 1996 (Harter, 2000). The EPA became one of the most aggressive users of regulatory negotiation, completing 12 negotiated rulemakings through 1996.

The case study by Weber and Khademian (1997) deals with a regulatory negotiation process for EPA's controversial reformulated gasoline (RFG) regulation in the 1990 Clean Air Act Amendment. Philip Harter, a proponent of negotiated rule making has pointed to the averaging provision[44] in EPA's reformulated gasoline regulation combined with a somewhat

[44] The averaging provision gave refiners more flexibility by allowing them to meet fuel standards on average over entire stocks of fuel rather than gallon by gallon. In return for this flexibility, refiners were required to meet average standards that were 10 percent more stringent, thus allaying some environmentalist' concerns.

more stringent standard as an example of a key conflict avoidance innovation that EPA would not have developed had it not needed to find consensus.[45]

Regulatory negotiation had an auspicious beginning in the 1990s; its proponents claimed a wide range of benefits based on reasonable theoretical speculation. In practice, it is questionable whether all of these benefits could be realized (Coglianese, 2001). There is now considerable debate whether the regulatory negotiation process has produced any of the proposed benefits (Funk, 1997; Harter, 2000; Freeman and Langbein, 2000; Coglianese, 2001).

However, negotiated rule making has proven enormously successful in developing agreements even in highly polarized situations and has enabled parties to identify the best, most effective, or most efficient way of solving some regulatory controversies. Agencies have therefore turned to it to resolve particularly difficult, contentious issues that have eluded closure through traditional rule-making procedures. The next section describes negotiated rule making in more detail including its core tenet, the theory of consensus building. The objective is to introduce and apply this social learning process to policy making in the context of rapidly developing countries.

Consensus-based regulatory negotiation as a policy process

Consensus-based regulatory negotiation still attracts a remarkable amount of scholarly attention in the United States. However, it has also been the target of often vitriolic skepticism from both practitioners and academic analysts[46] (Amy, 1987; Rose-Ackerman, 1994; Werhan,

[45] Harter advanced this argument in remarks delivered to the administrative law section of the Association of American Law Schools at its meeting on January 9, 1998.

[46] For example, regulatory negotiation proved unattractive to some administrative law scholars, who attacked it first

1996; Funk, 1997; Beardsley, Davies, and Hersh, 1997; Rossi, 1997; Harrison, 1999; Caldart and Ashford, 1999; Coglianese, 2001).

Based on empirical evidence[47] that called the claimed advantages for regulatory rule making into question, these critics contend that the consensus-building process fails to live up to its purported benefits. They focus on the countless potential pitfalls that may turn worthy ideas into political nightmares, such as the erosion of state authority,[48] insufficient representation of the public interest,[49] administrative incompetence,[50] regulatory imprecision, increased time and expense, the lowest-common-denominator problem, unrealistic expectations, new sources of conflict due to shaky or fragile consensus, cooptation by powerful conveners due to political inequality,[51] and so forth.

Advocates for consensus-based decision making in the United States (Susskind and

---

on theoretical and later on empirical grounds. For some, the mere idea of negotiating rules with stakeholders seemed anathema to the traditional concept of the agency as a faithful agent of Congress. They argued by shifting the decision burden to stakeholders who owe no duty to the public or to Congress, regulatory negotiation invites agency abdication of responsibility. Thus, the process embodies what many administrative law theorists viscerally fear: the last step from a system of arm's-length interest representation- which preserves the agency's hierarchical authority- to one of direct interest group bargaining (Freeman and Langbein, 2000).

[47] In practice, there was the EPA's sharp drop off in use of negotiated rulemaking after 1993.

[48] The great failing of regulatory negotiation from the point of view of the agency is that institutionally negotiated rulemaking reduces the agency's power relative to the regulated entities and other interest groups by granting them a veto over the consensus required.

[49] Apart from limited representation of general public in negotiation table, Judge Patricia Wald (1997) concludes that regulatory negotiation restricts in some measure through its insistence on face-to-face negotiations, the intrusion of political and extra-substantive considerations at all levels of rulemaking, agency and White House, and from all sources, identified and unidentified.

[50] According to Coglinese (2001), even when agencies do adopt regulatory negotiations, agencies do not do so for their most important rules. Agencies have eschewed negotiated rulemaking for federal rules having the broadest and most substantial impacts on industry and the public. The rules chosen for regulatory negotiation have stood at least a notch below EPA's large programmatic rules in terms of their scope and importance. Each of the negotiated rules has affected only a limited number of parties, at times just a single industry, precisely as the agency's own guidelines suggest. Instead of selecting the most challenging rules, the agency has used negotiated rulemaking for what an earlier EPA report called second-tier-rules or those rules affecting program implementation-rather than rules establishing program structure.

[51] Agency decisions on the relative merits of regulatory decision in particular cases may differ from those of interest groups. Ellen Siegler (1997), commenting on the American Petroleum Institute's participation in two regulatory negotiations concluded that environmental group participants have an advantage in regulatory negotiation over industry participants because they were not required to educate other participants, did not have to establish their credibility as experts, also enjoyed the advantages of having well-developed negotiation skills and experience, did not have to check back with their constituencies at every turn.

McMahon, 1985; Society of Professionals in Dispute Resolution, 1997; Healey, 1998; Susskind et al., 1999; Freeman and Langbein, 2000; Harter, 2000; Wondolleck and Yaffee, 2000; Booher and Innes, 2002; Innes, 2004) reject such skepticism by calling for authentic dialogue that would require the meeting of procedural conditions such as the inclusion of a full range of stakeholders (important parties), fair process management, and some procedural safeguards mandated by administrative laws,[52] in order to label a process "consensus building." These defenders claim that critics have extrapolated from observation of poorly managed processes, in which the conditions for authentic dialogue were not met.

In the heated debate over the pros and cons of consensus-based regulatory negotiation, it is clear that some processes are successful and others fail. To increase the potential for favorable outcomes, theorists and practitioners of consensus-based regulatory negotiation are working toward a definition of the conditions necessary for successful consensus building in regulatory decision making.

This chapter includes an analysis of academic theories related to consensus-based regulatory negotiation. The terms "consensus-based negotiated rule making" includes three key ideas: The first is "consensus building." Building consensus should be built through the second idea, "interest-based negotiations." Third, these negotiations are embedded in a "regulatory or policy process." To learn something meaningful from the history of negotiated rule making as an alternative tool for public dispute resolution requires the understanding of the theories and

[52] The Negotiated Rulemaking Act (NRA) of 1990 requires federal agencies to provide notice of regulatory negotiations in the Federal Register (5 U.S.C. § 564(a) (1994)), to formally charter regulatory negotiation committees (5 U.S.C. § 565(a)), and to observe the transparency and accountability requirements (5 U.S.C. § 566(d), (g)) of the Federal Advisory Committee Act (5 U.S.C. app. §§ 1-15). Any individual or organization that might be "significantly affected" by a proposed rule can apply for membership in a regulatory negotiation committee (5 U.S.C. § 564(b)), and even if the agency rejects their application, they remain free to attend as spectators. Most significantly, the NRA requires that the agency submit negotiated rules to traditional notice and comment.

practices that define these three important concepts (Figure 2-1).

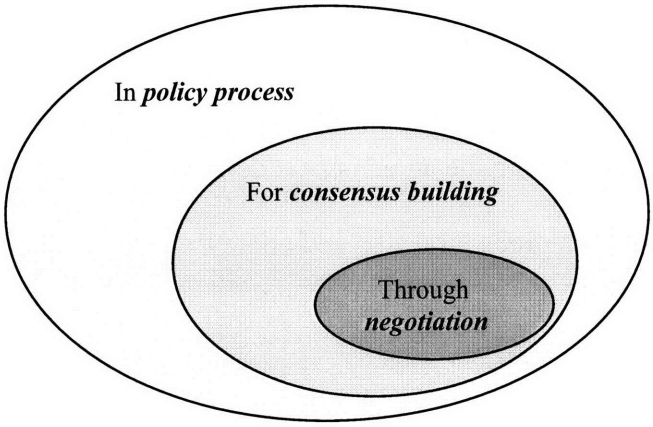


Figure 2-1. Understanding of negotiated rulemaking in the policy process

Consensus Building

The theory of consensus building and its propositions as the backbone of regulatory negotiation process has been developed over the last two decades by Lawrence Susskind and others (1985, 1987, 1996, 1999). To address difficult environmental and other public policy disputes, Susskind suggests a number of procedural steps and techniques that conveners, facilitators, and stakeholders should take in building consensus. Susskind and his colleagues contend that a consensus-building process should follow these steps:

- Conveners, usually government agencies, hire neutral and professional facilitator to manage a consensus-building process.
- The neutral and professional facilitator conducts a conflict asse4ssment,
- The relevant stakeholders select their own representatives to participate in the

proposed processes.

- A set of ground rules to guide group participant behavior in and outside the process is established.
- Joint-fact finding is used to address scientific disagreement and uncertainty.
- A strategy for implementing the agreement is defined.

The sections below detail each procedural step and relate them to the theory and practice of regulatory negotiation.

Hiring neutral, professional facilitators

Conveners of a consensus-building process consider several factors in hiring neutral, professional facilitators to assist in managing consensus building or negotiation processes among stakeholders for two main reasons. First, in hiring a facilitator, conveners should seek the consent of stakeholder representatives; this will help ensure neutrality. Neutrality in managing processes is important because, in many cases conveners also can have stakes or hidden agendas in negotiations. Stakeholder buy-in cannot be gained unless the management of the process is perceived to be neutral. Stakeholders will more readily accept a facilitator's assistance in the next phases of the process, such as conflict assessment, ground rule setting, and joint-fact finding if that person is considered neutral. Second, facilitators can help negotiating parties clarify for themselves and others the meaning behind their claims, statements, and arguments (Moore, 1986).

Assessing Conflict

Conflict assessment by neutral facilitators should be conducted in order to identify the

conflicting issues and legitimate stakeholders (not representatives), figure out areas of potential agreements by drawing an issue-stakeholder map, and even propose some initial steps for consensus building among identified stakeholders. Before the issuing of the final report of conflict assessment, all stakeholders should have the opportunity to review and comment on it. The final report may imply that a consensus-building effort is not appropriate given the situation.

To do conflict assessment, a neutral facilitator or a group of facilitators may learn something about the potential stakeholders from the conveners first but they should conduct their own interviews to create a comprehensive list of relevant and legitimate stakeholders.

Identifying all relevant stakeholders and important issue areas is the first and foremost step in a consensus-building process, because unidentified but important stakeholders can endanger the consensus-building process at later stages by challenging the legitimacy of the final agreement among negotiating parties. In this step, identifying stakeholders does not mean selecting representatives from each of the stake-holding groups. Representatives in a consensus-building process should be chosen by the stake-holding groups themselves. These representatives should be able to represent the interests of the groups well and communicate effectively with constituents.

Establishing Ground rules

Susskind and other scholars recommend spending a considerable amount of time and resources at the beginning of the process on elements such as assessing conflict and setting ground rules to make consensus building more successful. Ground rules will govern representatives' behavior inside and outside of the negotiation process. For example, all representatives together should discuss and consent to codes of conduct during deliberation (e.g.,

not to intercept or criticize other speaker's arguments); time management (e.g., maintaining a schedule); roles of the convener, facilitators, and representatives; decision rules (e.g., whether to use unanimity, supra-majority, voting for final package or each agenda); and communication with media or the general public on the progress of the deliberations. These ground rules are important safeguards against potential misbehaviors which could endanger the consensus-building process.

Pursue joint fact-finding

Environmental policy making should be based on sound science. However, scientists are sometimes unable to provide clear-cut answers to decision makers. When there are high stakes on a certain environmental issue, scientific uncertainty can be utilized by stakeholders to block implementation or support certain decisions. Moreover, partisans in public policy disputes are unlikely to defer to experts selected by their opponents. So-called adversarial science is more conspicuous in traditional rule-making processes and litigation. Stakeholders will attack the assumptions or methodology underlying each other's self-justifying scientific models. This common practice exacerbates tension and disputes among stakeholders.

To deal with this problem, consensus-building theorists recommend joint fact finding. In this approach, stakeholders with differing viewpoints and interests work together to define a set of questions to be answered, an analytic method, and a process to collect necessary data and information; to select a group of experts to perform the research, analyze facts and forecasts, and develop common assumptions and informed opinion; and finally, to use the information developed to reach decisions together (Ozawa, 1991; Susskind et al., 1999).

Unfortunately, even when joint fact finding is used as part of carefully structured public

deliberation, dialogue--no matter how well facilitated--is unlikely to lead to agreement on public policy choices. Argumentation, no matter how skillfully presented or corroborated by expert advice, will rarely cause partisans in public policy debates to put their own interests (as they see them) aside (Susskind, 2006).

Design a strategy to implement the agreement

The product of consensus building is a proposal, not a final decision. The proposal must be acted upon by those with the relevant authority to do so. Thus, the product of most consensus-building efforts, no matter how detailed, is almost always subject to further review and action by elected or appointed officials. Of course, were those officials to significantly modify the proposal, the groups involved would disavow their support. Also, representatives of the agencies themselves typically participate usually in the entire consensus-building effort. Their main concerns should have been addressed by the group (Susskind, 2006).

Stakeholder representatives at the table need to think clearly about how the agreement will be shared with their constituencies. Negotiating parties should develop a strategy to handle disputes and uncertainties about the proposed plan in the future and prepare the regulations, guidelines, or legislation necessary to enable the implementation of the agreement. One way to do this is to lay out a range of contingent commitments that will come into play only if unpredictable events occur or milestones are reached. Another is for the agreement to spell out monitoring requirements, incentives for performance, and penalties for non-compliance.

A regulatory negotiation process includes the consensus-building steps described above.[53] The agency, for example, EPA, retains an outside contractor to convene the negotiations and

[53] EPA's process for the first negotiated rulemaking has been described in detail in Susskind and McMahon (1985).

recommends a neutral facilitator, subject to the committee's approval (*Use of neutral, professional facilitators*). In the committee, affected interests could be represented by 15 to 20 people. They will invest the time and resources required to work through issues to reach a consensus typically defined as "the concurrence of all interests represented" on the committee.

Once the committee is constituted, it has substantial control over its mode of operation, composition, use of resources, and the terms and timing of its dissolution. At the outset, each committee adopts its own protocols (*Set ground rules*). The committee also determines what factual information or other data is necessary for them to make a reasoned decision, develop that information, analyze the information, examine the legal and policy issues involved in the regulation, and reach a consensus on their recommendations to the agency (*Pursue joint fact-finding*). As part of the consensus, each private interest agrees to support the recommendation and resulting rule to the extent that it reflects the agreement, and the agency agrees to use the recommendation as the basis of its action (*Design a strategy for implementing the agreement*).

However, just as consensus-building processes complement conventional decision making, regulatory negotiations complement, but do not replace, conventional rule making. They take place within the notice-and-comment format prescribed in the Administrative Procedure Act (APA). Negotiating parties retain their right to judicial review of the final rule. Agencies also charter the negotiating committees under the Federal Advisory Committees Act (FACA). This legislation requires a number of procedural requirements regarding public notice, open meetings, and summaries of the negotiating sessions. The agency participates as a party-at-interest in the negotiations. Like any other party, the agency can block agreement or withdraw without prejudice at any point. The protocols allow participants to discontinue negotiations at any time if they do not appear productive. Participation does not prohibit a party from seeking judicial

review of a final rule later.

Working through interest-based negotiation

The theory and practice of consensus building is perfectly consistent with the spirit of deliberative democracy[54] outlined in the political theory literature (Mansbridge, 1980; Cohen, 1983; Barber, 1984; Elster, 1998; Dryzek, 2000; Fung 2004) in which theorists argue that legitimate law making can only arise from the public deliberation of the citizenry. However, it should be noted that the theory of consensus building, in contrast to Habermas' (1981) discourse theory, which distinguishes strategic and communicative action,[55] has deep roots in the practices and theories of interest-based negotiation, mediation, and alternative dispute resolution. Consensus building is based on approaches to planning and policy making (Fisher and Ury, 1983; Moore, 1986; Susskind and Cruikshank, 1987; Innes, 2004) structures that do not require the individual parties to act impartially but rather allow them to pursue their own interests. Therefore, the theory of interest-based negotiation is embedded in the consensus-building process.

The so-called "Harvard concept for successful negotiation" (Fisher and Ury, 1983) emphasizes a rational basis for the process. Fisher and Ury suggest that emotions should be separated from the factual basis of the problem; the parties to the negotiation should concentrate on their interests instead of their positions; as many alternative solutions as possible should be

[54] Deliberative democracy refers to any system of political decisions based on some tradeoff of consensus-based decision making and representative democracy. It focuses as much on the process as the results (Elster, 1998).
[55] The idea of communicative rationality is an epistemological view, parallel to the idea of scientific method. In this model of ideal speech situation, where interests engage in dialogue, undistorted by power differentials and information differences and where assumptions are challenged, a kind of truth is formed. Shared understanding develops, reifications are broken down and interests work through their differences to produce more complete, meaningful, and robust knowledge than scientific method or socially-constructed negotiations in situations where controversies and multiple goals and contradictions abound. The participants are required to act impartially and to be ready to change their preferences (Habermas, 1981).

developed and considered; and finally, the various options for solutions should be subject to neutral criteria of evaluation.

Another key assumption that negotiation theory contributes to the consensus-building process is explained under the heading of BATNA (Best Alternative to a Negotiated Agreement) popularized by Fisher and Ury (1983). People will come to the negotiation table (or consensus-building process), stay at the table, accept a proposed agreement obtained through negotiation, and/or implement the agreement as long as they believe negotiations (and/or the agreement reached through negotiation) will produce an outcome for them that is as good as or better than the outcomes that would result from other available methods of pursuing their interests. Therefore, in theory, a consensus-building effort can be jeopardized when key stakeholders either do not come to the table or opt out from negotiation based upon whether or not they think their alternatives away from the negotiation table will produce better results[56].

In the policy process

While the increased use of consensus building in public disputes reflects mediation and negotiation rather than litigation strategies, negotiated rule making is distinct from consensus building generally used to resolve public disputes in terms of purpose, scope, and complexity of context. First, regulatory negotiation is more prospective in its orientation. Its purpose is less to resolve specific disputes than to define general regulations that will influence later behavior (Harter, 1982). Second, the disputes that negotiated rule making aims to resolve extend beyond

[56] In practice, however, parties to a proposed negotiation may not be sure of their BATNAs and this uncertainty may help bring them to the negotiation table. Unless all the key groups refuse to participate, any group that decides to hold out and challenge the rule in court at a later time will face difficulty mustering allies for such a challenge. And, convenors and facilitators reassure participants that the process is voluntary and that they can quit at any time. That means that, even if the interest groups fail to get what they want from others, they know they could walk away and block consensus. Thus, participation (or, coming to negotiation table) does not preclude stakeholders from pursuing other options later (Susskind and McMahon, 1985)

particular geographic sites or concrete disputes and have broad policy applicability. Third, consensus-based regulatory negotiation is inherently embedded in the larger context of policy processes.

Negotiated rule making is a hybrid of the principles and institutional philosophy of political pluralism in which traditional rule making is combined with consensus-building techniques (Fiorino, 1988). In a traditional rule-making process, agency regulatory activity is subject to political constraints[57] through appropriations riders, oversight hearings, and other means. Agencies must also take the views of members of Congress and the President into account in shaping regulations. In regulatory negotiation, agencies must both negotiate and conduct a traditional notice-and-comment rule making after the negotiations conclude (Morris et al., 2003).

Given the hybrid nature of negotiated rule making, one characteristic of the consensus-building process makes negotiated rule making fragile: any participant, including an agency representative, can veto the outcome. Even after consensus is reached, there is always the possibility that others will revert to traditional tactics of litigation, a public-relations campaign, or an appeal to political officials with the power to nullify the agreement.[58]

However, the ADR (Alternative Dispute Resolution) literature, including that on consensus building, tends to concentrate for the most part on what goes on inside the procedure

---

[57] Michigan Congressman John Dingell, for example, for years has exerted great influence over the EPA's regulatory efforts regarding mobile sources. (Joskow and Schmalensee, 1998). Dingell's relentless advocacy on behalf the auto industry has undoubtedly reduced mobile source regulation and so possibly increased air pollution. Adler (1992) discusses Congressman Dingell's efforts to force automobile companies and oil companies to stick together on air pollution issues.

[58] A research on regulatory negotiation in the United States Environmental Protection Agency (EPA) reports a very active post-negotiation period during which participants continue to communicate with the agency and with members of their own organization and coalition, among others. Individuals reported communicating most often with the EPA and others in their own organization. The reasons most frequently given for such communication were: to provide or obtain information about some element of the rule (72% of responses), to try to effect a change in the final rule (20%), or to plan strategy for the post-rulemaking period (9%). Only 25% of the respondents reported that their post proposal communications resulted in a change in the rule (Freeman and Langbein, 2000).

of consensus building itself and does not give systemic attention to external factors that might influence it during and after the negotiation. This literature argues that the important factors rendering positions more flexible and consensus reachable are to be found at the negotiating table (Holzinger, 2001). Lax and Sebenius (1985) argue that an actor's willingness to compromise is not determined solely at the procedural level. In this view, the course of negotiations and the final results of bargaining also, and perhaps even more, are determined by what goes on "away from the negotiating table."[59] Exogenous shocks during and after negotiations can be of considerable importance in explaining policy change and development, because the shocks can mean more negotiating power for certain parties.

The consensus-building literature are clearly limited in explaining the significance of dynamics outside negotiation processes. The next section outlines how theories of policy process frame negotiation or bargaining in from another angle.

Consensus (or bargaining) in policy processes

A complete picture of consensus building through regulatory negotiation requires an understanding of policy process or policy change, since external contexts can powerfully influence the internal workings of a consensus-building process. Theories of policy process explain how policy decisions are affected by interest politics and policy disputes among many stakeholders.

Any policy-making process can be staggeringly complex and require a knowledge of the

[59] For example, those within the EPA favoring a hard line against industry would have had little negotiating power, when the Reagan Administration was generally unsympathetic to increasing regulatory burdens during the 1980s. While Congress and the Administration were unlikely to allow the EPA to set strict standards that would harm industries severely, the main obstacle for the EPA was the opposition of environmental pressure groups, who had to be convinced that the EPA had not given away to industries. The negotiated rulemaking setting allowed the industry to credibly convey financial information to the environmental pressure groups to prove it had not gotten too good a deal from the EPA (Morris et al., 2004).

interests of many stakeholders each of whom actively seek to put a specific "spin" on events involving possibly very technical scientific and legal issues. The analyst of policy process must find some way of simplifying the situation to have any chance of understanding it (Sabatier, 1999).

This analysis discusses two theories of policy process[60] widely acknowledged as the most influential and coherent conceptualizations of policy processes: the Multiple Stream Framework (hereafter, MSF) by Kingdon (1984) and the Advocacy Coalition Framework (hereafter, ACF) by Sabatier and Jenkins-Smith (1993).

Kingdon (1984) elaborated the so-called stream model developed by Cohen, March, and Olsen (1972) in order to explain the agenda-setting process. His idea is that decision making consists mainly of a stream in which problems are discussed (problem stream), a stream in which solutions are discussed (policy stream), and a stream consisting of things such as the attitude of the public, campaigns by pressure groups, administrative change and ideological contributions (politics stream). The three streams exist simultaneously and each develops according to its own dynamics and rules.

Major policy changes are most likely to occur when the three streams become linked, when actors with solutions in the policy stream encounter appropriate problems and find political commitment. Such linkages can occur especially when there is favorable momentum, termed a "policy window" by Kingdon.

Sabatier and Jenkins-Smith's ACF (1993) is also an attempt to analyze these streams,

---

[60] There are many theories of policy process. Although all theories were developed to encapsulate aspects of policy-making in advanced post-industrial societies characterized by high degrees of bureaucratization and professionalization, those theories do not necessarily travel well. For example, the advocacy coalition framework works better both analytically and prescriptively in the United States while the policy networks framework works better in Europe, because American politics tend to be more fluid and less institutionally rigid than European politics.

particularly the policy and political streams, but it deals with the entire policy process, not just agenda setting and policy formulation. ACF was developed to account for policy change over periods of a decade or more.[61] It integrates political scientists' traditional preoccupation with elections, institutional rules, and socioeconomic conditions, and the concerns of Carol Weiss (1977, 1979) and other scholars with the role of scientific information and policy analysis in that process.[62]

The ACF defines a policy subsystem as the set of actors[63] who are involved in dealing with a policy problem; it does not describe how to arrange procedural matters. In a policy subsystem, advocacy coalitions are built around a few shared core belief systems. Technical and scientific information can be introduced into the study of belief change and ultimately of policy change.

While proponents of these two models analyze policy processes through different lenses, both models share several features. First, both frameworks describe coalition building as an important phenomenon in the public policy process. In the ACF perspective, coalitions seek to alter the behavior of governmental institutions in order to achieve their policy goals over time. In the MSF view, potential coalition supporters are enticed into support by promises of some benefit, and others climb aboard the bandwagon out of fear that they will be left without their share of the benefits, in the event that something should pass.

Second, an eventual policy choice depends on a process of consensus building among the

---

[61] To complete at least one formulation/implementation/reformulation cycle to obtain a reasonably accurate portrait of success and failure and to appreciate the variety of strategic actors pursue over time. (Sabatier, 1999)

[62] All models assign some importance to the mobilization and deployment of technical knowledge. Theories of the policy process or policy change need to address the role played in the process by technical information concerning the magnitude and facets of the problem (Sabatier, 1999)

[63] The ACF challenge the assumption that actor's organizational affiliation is primordial: there is something fundamentally different from legislators, administrative agency officials, interest group leaders, researchers, and journalists.

advocates, coalitions, and specialists around a particular package of policies. According to the MSF, while consensus is built largely through the processes of persuasion and diffusion among policy experts in the policy stream, the political stream's consensus building is governed by bargaining among politicians and their aides.[64] In such bargaining, the discussion is more likely to be "you give me my provision, and I'll give you yours," rather than, "let me convince you of the virtue of my provision."[65]

The general bargaining process in the political stream starts with participants who stake out their positions somewhat rigidly, refusing to compromise on their principles, and peaks at the point when rigid adherence to one's original position would cost one dearly. These times are the real opportunities--the policy window--when compromise is in the air. The ACF emphasizes the role of professionalized analytical forums including conferences of professional groups; advisory committees, such as the National Academy of Science in the United States; and blue ribbon technical advisory committees which provide ample opportunity for experts from competing coalitions to justify their claims before their peers in order to resolve policy analytic conflict exacerbated by advocacy science.

Such forums, dominated by professional norms, can facilitate learning across different coalitions to the extent of altering their belief system, even if their core beliefs are not changed. Changes in the distribution of beliefs within a coalition generally will start with individual

---

[64] For a through discussion of bargaining, see Robert A. Dahl and Charles E. Lindblom, Politics, Economics, and Welfare (New York: Harper and Row, 1953), Chapter 12 and 13. It should be noted that policy specialists do not have a monopoly on persuasion, nor do politicians have a monopoly on bargaining.

[65] Kingdon (1984) took an example of bargaining developed between highway and mass transit advocates that resulted in benefits to both. As interstate highways were being built, urban legislators became increasingly unhappy, both because freeways were distorting land use in the urban areas and because a substantial program was underway which benefited small town and rural areas and not cities. They first pressured for raiding the highway trust fund for mass transit, and found considerable resistance to that idea. The controversy over that tack receded, however, because of a not-so-tacit understanding that the highway advocates would support mass transit appropriations from general funds if mass transit advocates would leave the highway trust fund alone. Each had its funds, and while there were still disagreements around the edges, a powerful coalition was built to their mutual benefit. They had not persuaded one another so much as they had generated a logrolling exchange.

learning or turnover, be resisted by group dynamics, and then become diffused throughout the group.

Third, both frameworks acknowledge the influence of exogenous factors in policy processes. Both theories acknowledge that much of the process is governed by large-scale events and structures not under any individual's control, although in reality some exogenous events are manipulated by active advocates for certain policy choice. External variables can include national mood, regime change,[66] state of the economy, catastrophic events, and more long-term elements of the political culture and traditions.

Those factors can make some policies possible and other policies impossible. For example, budgets constrain outcomes. The state of economy can support more expansive governmental programs at some times than at others. Some groups and socio-economic classes have more political resources at their disposal than others, which limits the possible alternatives and agenda items. According to the MSF, those external variables are found in the political stream. When external variables are coupled with the right problem and policies, a policy window opens. The opportunity for action presents itself only for a short time, and then the window closes.

The ACF tries to relate the MSF's windows of opportunity for major policy change to specific types of changes in events exogenous to the policy subsystem. One hypothesis posited by the ACF is that in addition to the accumulation of scientific evidence, changes in the distribution of political resources is required to alter core aspects of public policy, and that these changes arise from shocks exogenous to the subsystem. In short, coalitions in a policy subsystem hope to gain power within the subsystem and wait for some external event to

[66] Kingdon (1984) explains the advent of "Reagonomics" in the United States by watching the change in the political stream, that is, the new administration representing quite a sharp turn to the right, and the greater Republican strength in the Congress. He observes that those external events created an opportunity for markedly more conservative proposals to be considered seriously, because Reagan administration officials were keenly aware of the importance of striking while the iron is hot.

significantly increase their positional resources regardless of the extent of policy learning.[67]

Fourth, both frameworks admit that another source of randomness in the policy process is the importance of influential individuals. Kingdon calls these people "policy entrepreneurs," who invest considerable resources in bringing their conception of problems to officials' attention, trying to convince them to see problems their way, and taking advantages of external events. Those people include government officials, members of Congress, lobbyists, academics, etc. The ACF suggests the concept of "policy brokers," who are usually bureaucrats adhering to the tradition of "neutral competence." A policy broker's dominant concerns lie in keeping the level of political conflict within acceptable limits and reaching some reasonable solution to the problem, though many brokers will also have some policy competence.

These two well-known theories of policy process help place consensus building in the context of the regulatory process characterized by coalition building, political bargaining, the roles of expert, the roles of influential individuals, and the importance of external events. However, those two theories do not seem to lend as much credence to the meaning of "consensus building" negotiations as an alternative (or supplement) to traditional rule making in regulatory decisions.

For example, while the MSF portrays the political consensus reached by politicians or bureaucrats in the political stream as the important factor in a policy decision, it fails to represent adequately the role of private stakeholders. These stakeholders may include experts who are close to the ultimate decision-making authority of the interest they represent. They can

[67] Sabatier (1993) shows that members of the Economic Feasibility Coalition around the Clean Air Act enactment attempted to utilize the 1973-1974 oil crisis and the 1980 election of President Reagan to increase their resources against the Clean Air Coalition on issues relating to the policy core incorporated into the 1970 Clean Air Amendments. Although pressures for compromise generally result in governmental programs that incorporate elements advocated by different coalitions, the 1970 Federal Clean Air Amendments incorporated to an unusual degree most elements of the belief system of the Clean Air Coalition.

participate directly in face-to-face negotiations with government agencies, jointly developing alternative policy options, producing scientific facts, and contributing to the final substantive decisions.

The ACF describes the professionalized analytic forum, such as a secret science court, as an important mechanism to produce the knowledge necessary for decision making. However, such a closed forum excludes participation by a large fraction of important stakeholders. In a consensus-building process, stakeholders and experts work together.

The above analysis of relevant theories of consensus building and policy process reveal inadequacies in both fields for comprehensively understanding public decision-making (or dispute resolution) by consensus-based negotiation in pluralistic interest politics. The theory of consensus building ignores external factors in complex policy processes. Theories of policy process neglect what is happening at the negotiation tables and the procedural steps of consensus building in regulatory processes.

It is necessary to build a new analytic framework that would better conceptualize a contemporary (or emerging) decision-making mode of consensus-based regulatory negotiation by incorporating elements of consensus building and policy process theory. The next section suggests such a framework.

New analytic framework for consensus-building in regulatory decision-making

Based on the review of relevant theories outlined above, this section suggests a new analytical framework for conceptualizing complex dispute resolution processes (or, consensus

building) in regulatory decision making. A conceptual framework should provide both broad language and a form of reference capable of describing the reality of a complex and chaotic law-making universe composed of large numbers of political actors, institutions, ideas, and events. It should lead to the discovery of how policy could be made more effectively and wisely. Given the transition from adversarial government to participatory collaboration in democratic decision making, a new analytic framework should allow researchers to reconstruct the policy process by helping them observe multi-party negotiations in terms of a new set of assumptions about consensus building.

In so doing, the new analytic framework is expected to fill the gap between the two relevant theories of consensus building and policy process, which are not now adequately linked to each other. However, theories of both consensus building and policy process are complementary and essential to better understanding of consensus building in public policy making.

A first step in constructing the new analytic framework is to agree with advocates for consensus that if specific conditions for or steps toward genuine consensus building are made, the effort is more likely to be successful. Eleven such conditions and steps may be derived from the literature of a consensus building. These may be sorted into two phases of consensus building process: initiation and deliberation. Table 2-1 below shows the variables and the rationales for using each variable. The initiation phase includes seven variables (I1 to I7) and the deliberation phase, four variables (D1 to D4).

Table 2-1. The necessary conditions for successful consensus effort

Phase	Variable	Rationale

Initiation	**I1**: Use of a neutral, skilled facilitator	Neutral and skillful facilitators can overcome suspicion of the motives of the convening organization on the part of stakeholders. A skillful facilitator can play a central role in identifying stakeholders and issues, in ensuring that the parties check back with their constituents, and that needed changes after consensus are agreed upon by the entire stakeholders, and in managing process more efficiently and fairly.
	I2: Conflict assessment	Conflict assessment conducted by neutral facilitators helps to identify the conflicting issues and legitimate stakeholders, figure out areas of potential agreements by drawing an issue-stakeholder map, and even propose some initial steps for consensus building among identified stakeholders. Identifying all relevant stakeholders and important issue areas is the first and most important step in a-consensus building process.
	I3: Inclusion of a full range of stakeholder	The legitimacy of a consensus-building process depends on the public's perception that the effort is representative of all interests and all points of view. It gives stability to any outcome. Otherwise, any agreement is likely to be contested as unrepresentative by excluded parties.
	I4: Establishment of multiple issues to allow trade-offs across issues	There must be two or more issues on the table so that parties can maximize their overall interests by trading or bundling issues. If there is less opportunity for trade-offs so that stakeholders can preserve their interests, they are likely to resort to other options.
	I5: Participation by organizations with implementation power	The participation of parties with implementation power can be a key for a successful initiation and maintenance of consensus building, because parties must believe that their agreement will be implemented and that their participation will be worthwhile. The most significant variable in the likelihood of successfully implementing agreements appears to be whether those with the authority to implement the decision support the process (Bingham, 1986; Susskind and Cruikshank, 1987). If the participating authority has options other than consensus building to secure their interests, the process may be at risk.
	I6: Financial support for process	Availability of financial resources can help disadvantaged groups participate on an equal footing, hire technical consultants, and trusted facilitators. Asking parties to pay for a facilitator or an outside expert is sometimes one more barrier to participation (McKinney, 1997).
	I7: Time pressure and deadline	Without a deadline, parties may purposefully delay or fail to focus on reaching a settlement.
Deliberation	**D1**: Setting a ground rule by participants themselves	Stakeholders in a consensus-building process can feel that they own the process by setting the ground rules for agenda setting, deliberation, and implementation[68].
	D2: Fair management of process	Participants appear more satisfied with consensus-building than with their conventional rulemaking process and other unfair processes not only if they think that the substantive outcome will be a rule better than one that would have been promulgated otherwise, but also because they see that the process itself is managed fairly (Freeman and Langbein, 2000). Fair process means equal opportunity to be heard and respected and to access information. A fair process of negotiation appears to empower all the parties in various ways and constrains the most powerful.

[68] The game theory and negotiation literature often suggests that they who set the rules and define the agenda win the game (Johnson, 1993)

	D3: Joint fact-finding	Joint fact-finding can ease tension and disputes aroused by the tendency for stakeholders to attack the assumptions or methodology underlying each other's scientific models.
	D4: Communication between representatives and their constituencies	If representatives at a negotiation table do not represent the interests of their constituencies or communicate with them, the constituencies can challenge any agreement during or after the negotiation.

To expand the theory of consensus building to include external factors during and after negotiations in the policy process, several existing assumptions of Kingdon's MSF[69] can be modified and applied. The new analytic framework has four different premises derived from MSF. (See Figure 2-2.)

In addition to Kingdon's three streams of problems, policies, and politics, the new analytic framework includes a fourth stream, "consensus building." The original MSF includes two opportunities for consensus making within the policy stream and politics stream. However, while acknowledging the distinct set of actors in each of these two streams in generating policy options and alternatives, and bargaining, the new consensus building stream suggests another, independent set of functions. Participants in the new stream include an array of stakeholders including technical experts, non-governmental organizations, business associations, and government officials. By meeting in person they can revisit problems, discuss agenda-setting, generate alternatives, and make a consensus agreement, rather than try to influence those processes by means of political mobilization outside the consensus process.

Second, given the experimental or ad-hoc characteristics of the consensus-building process,

[69] The literature search for policy process yield studies mostly on the United States, or inspired by United States policy examples, than on any other country. It would not be implausible if the general conceptualizations of policy processes that are put forward were more valid in the United States than elsewhere (Mooij, 2003). However, Horowitz (1989) argues that the process – the constraints, the ripe moments that produce innovation, the tendency for policy to have unanticipated consequences and so on – has many similarities in developed and developing countries, while there are some distinctive features in the third world policy process such as fragile state legitimacy, large state structure, weak capacity to effectuate policy and so on. In his view, it is possible to understand many policy phenomena in terms of concepts already embedded in the emerging discourse on public policy in general. Finally he makes the point that perhaps it is not so much the level of economic development that makes the difference in policy process, but the extent to which there are democratic structures in place.

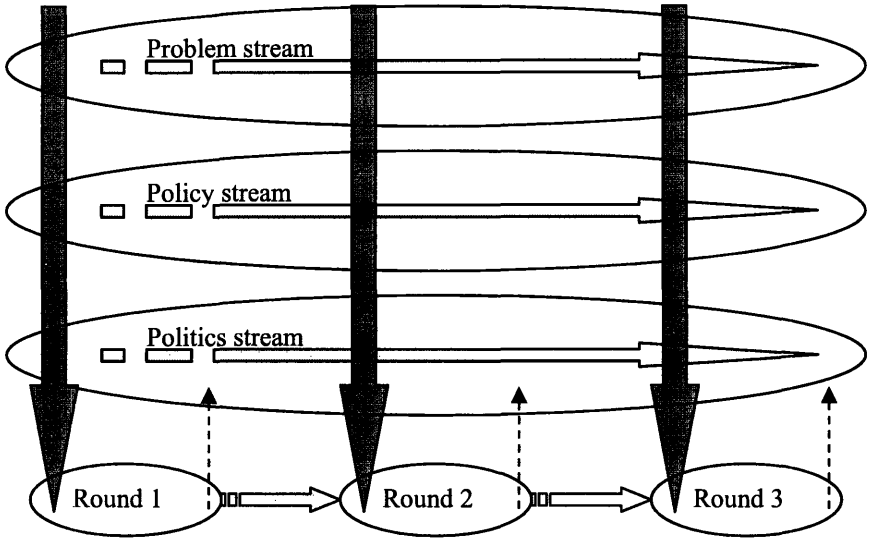
it can be initiated through a policy window by policy entrepreneurs who try to link three streams (problem, policy, and politics) to advocate specific policy options for their interests. In so doing, the variables in the initiation phase of a consensus-building process, such as the actors participating, the issue to be discussed, and the supporting organizations engaged, will all be affected by policy entrepreneurs' efforts to link the three streams.

Third, the confluence of the three streams should dramatically enhance the odds that the consensus-building effort is initiated with a certain structure. But nothing about policy choice through consensus agreement is automatic. The consensus-building stream does not replace representative democratic practices, but supplements them (Susskind, 2006). Therefore, the outcome of the consensus stream, whether disagreement or consensus, is not the final end product; it is more like a punctuation mark in an ongoing deliberative process (Innes, 2004) and vulnerable to bargaining in the politics stream. The consensus-building stream consists of consecutive rounds,[70] marking phases in the narrative, or unfolding, of the policy-making process.

Fourth, the consensus-building stream, even after its initiation, can be affected by changes in the problem, policy, or politics stream. Those external factors can influence BATNAs of stakeholders who are negotiating in a consensus-building approach.

---

[70] See Teisman (2000) for different rounds model for research into decision making process.



Note: (Vertical darker arrows indicate the momentums of consensus building initiation as linking three separate streams. Vertical dotted arrows indicate the outcomes of consensus building efforts)

Figure 2-2. New analytic framework for regulatory process using consensus based negotiation

Because conditions from I1 to I7 of the initiation phase are important in setting the tone for successful consensus building, it is important to ask how those variables can be created, by whom, and when. In the new analytic framework, this work is done by policy entrepreneurs and/or conveners of consensus-building process by capturing situations or external factors in three streams: problem, policy, and politics. Following the initiation of the consensus-building process, deliberation factors from D1 to D4 play decisive roles in achieving the benefits of consensus building. Figure 2-3 depicts the relationships between consensus building and the policy process by showing various factors in each stream.

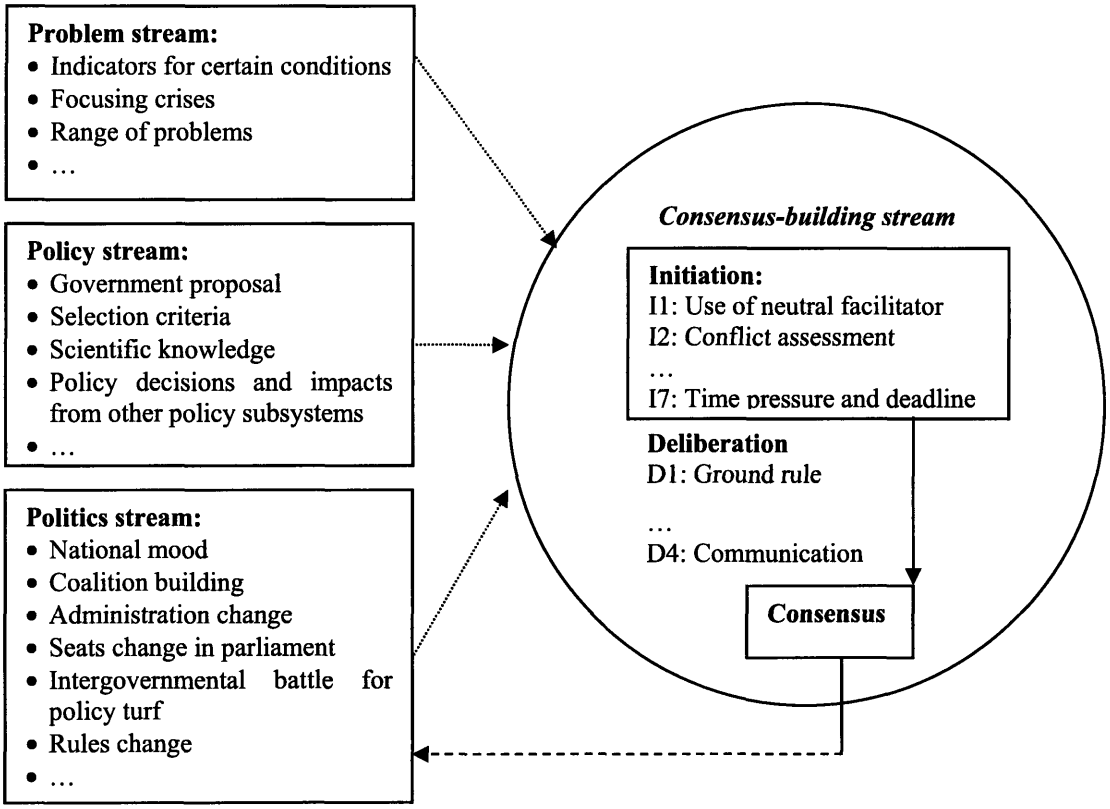


Figure 2-3. Incorporation of Consensus building into policy process

Chapter Three

Research Design

This chapter describes the research design that will shape the subsequent chapters. The first section states the research questions guiding the analysis. The second section outlines a research strategy. Then, a set of indicators are proposed to explore the middle ground between the theory of policy process and the theory of consensus building. The final section describes the methodology used to collect and analyze the data.

Guiding research questions

Two general questions underlie the research project as a whole; two specific questions refer to case studies of public dispute resolution efforts around urban air quality management in South Korea. Answering the case-specific questions will illuminate two larger theoretical questions.

General questions

1. **What are the main obstacles in nascent democracies, whether at a personal or institutional level, to meeting the conditions necessary for successful dispute resolution around urban air pollution?**

2. **How can a newly democratized society improve the consensus-building component of regulatory decision making?**

Specific questions

1. **Why did two dispute resolution efforts fail even with apparent consensus reached**

through negotiations?

2. **How was the Task Force able to resolve the dispute on a third attempt, even after the disputes were exacerbated by the previous two failures?**

Using case studies

Case studies, unlike experiments or quantitative studies, can allow the researcher to track decisions and impacts over time. Furthermore, public dispute resolution efforts in a nascent democracy are rare events. Quantitative or statistical analysis of such a small number of cases would not be particularly revealing.

Yin (2003) maintains that case studies should be the preferred strategy for answering "why" and "how" questions. He adds that case studies are especially useful when dealing with problems for which the context is hard to control. Conspicuous public disputes always play themselves out in various venues, including the media, public hearings, public forums, and even street rallies, while the stakeholders simultaneously meet in consensus-building processes (Innes and Booher, 1999). Consensus-building processes usually take a year or more to produce results. During that period, the external environment can change. For example, an administration can change, the balance of power among stakeholders can shift, and government agencies may alter their policy objectives.

Using case studies with rich descriptions of action, events, and contexts provides the reader with more than statements of findings. It also provides information about the complexity underlying those findings so that the reader may decide whether the findings make sense and when and how they can be applied.

Research strategy

The new analytical framework constructed in Chapter 2 from elements found in Kingdon's multi-stream framework and Susskind's consensus-building process theory creates a lens through which to examine complex public dispute resolution processes in regulatory decision making.

The research strategy includes two steps. The first, borrowed from the Kingdon framework, is the concept of the "policy window" and the role of "policy entrepreneurs" in changing policies. The new framework suggests that a new stream—the consensus-building process--can be initiated by some policy entrepreneurs when a specific policy window opens. The new analytic framework will be applied to the case studies to identify which conditions opened the window to consensus building, who initiated the consensus-building process, and how they did it.

Second, the idea of necessary conditions for a successful consensus building process is used to assess the initiation and deliberation of each consensus-building process. Finally, I intend to link the first and the second analysis in order to establish a relationship between the two theories. In other words, multi-streams in conventional decision making provide a backdrop for the activity of policy entrepreneurs, who use it strategically. Consensus-building streams come into being under certain conditions. Initiation and deliberation elements in the consensus-building process and outcome might be affected by those initial conditions.

Thus, the analysis combines variables in multi-stream framework with those of the consensus-building process. (See Figure 2-3, Chapter 2). Based on this new conceptualization of consensus building in a newly democratized country, I reconstruct three cases of consensus-

building efforts in South Korea. First, in each case, three streams of problem, policy, and politics will be identified as external factors, all of which could influence the initiation of a consensus building process. Second, eleven necessary conditions for successful consensus building are explored in each consensus-building round. Finally, observations are made as to whether consensus-building could resolve the dispute or not.

Guided by this analytic framework in deciding what data will be collected and how it will be analyzed, the analysis was conducted without presuppositions, taking a grounded approach (Glaser, 1992), based on interviews, observations, and written sources.

Data collection

This research draws upon original interview data, media articles, and government documents including expert reports and accounts of the negotiation meetings concerning diesel vehicles and the Special Act for managing Seoul metropolitan air quality. The interviews were semi-structured but open-ended, took from one to two hours to complete, and were conducted in person and tape-recorded. Twenty-two interviews with more than 30 active participants in the consensus-building processes were conducted. Names were selected from the list of participants in the Joint Commission for diesel private vehicles, the Environment Commission, and the Task Force, and grouped into eight categories: the Ministry of Environment; the Ministry of Commerce, Industry, and Energy; the Ministry of Finance; Experts; NGOs; auto industries; oil industries; and business associations. At least one representative from each category was interviewed, and in some cases two or four. In all cases, interviewees were senior officials or leaders of the organizations represented in the negotiations.

Interviews were conducted between May and July of 2004, and between May and June of 2005, in South Korea and in the US,[71] after negotiations took place. Several interviewees were contacted again to clarify technical matters or to get further detail on the proceedings. Roughly 40 interview questions were designed to elicit information from each interviewee concerning their knowledge of problems, their interests, negotiation strategies, their BATNAs, political connections, satisfaction with the agreement, rationales for post-negotiation activities, change of relationships, and trust through negotiations, their policy learning from meetings, and so forth. Questions were designed specifically to obtain information associated with the initiation phase variables and deliberation phase variables of the consensus-building process.

Documents were examined to track the flow of issues, to see what issues were prominent and controversial, and to triangulate, or verify interview contents. The documents examined included meeting summaries, group products, official government documents, confidential government documents, and news articles.

Data reliability

Interview data relied heavily on participant's ability to remember events and interactions that occurred three or four years in the past. Another limitation was the lack of documentation that captured the moment-to-moment interactions among the participants. The meeting summaries from each process were useful in capturing general events as well as what issues were raised during any particular day and how these issues persisted and changed over time. Some interviewees advised that the official documents revealed only a small fraction of the

[71] Some participants were staying in the US, for example working at the World Bank or studying at a university.

interactions among participants.

A large number of interviews was conducted to minimize the possibility that important interactions might be missed. Also, interview data was checked against other sources to verify and contextualize the information. However, in general, the interviewees in the processes were able to remember consistently situations and interactions underlying the information in the official documents.

The following chapters contextualize information on policy making for the management of urban air pollution and political institutions of South Korea as a background for the case studies of public dispute resolution.

Chapter Four

Multiple streams of urban air pollution (1991 – 2000)

During the ten years of air pollution policies in South Korea prior to 2000, three concurrent streams of problems, policies, and politics flowed sometimes independently and sometimes interactively. This chapter provides an analysis of these three streams between 1991 and 2000 as a background for a case study in 2001-2003 focusing on similar streams that emanated, but may be seen as distinct, from those streams. Understanding this background will facilitate a systematic analysis of the case, a two-year-long public dispute resolution regarding urban air quality management in South Korea.

The first section shows the types of issues that characterized the "problem stream." The second section is a discussion of who in the "policy stream" responded to these problems, and in what ways. The third section incorporates the "political stream," and demonstrates why certain policy activities occurring during this period led to the specific status of air quality in 2000.

Problem stream (1991-2000)

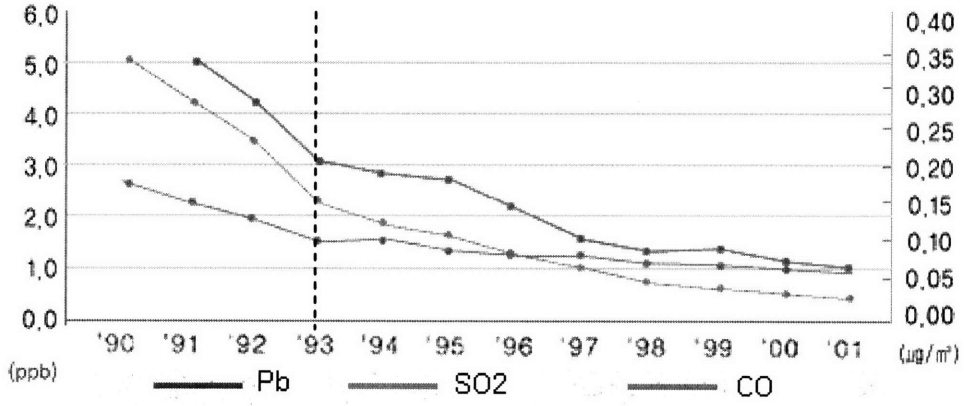
Problems capture the attention of people in and around government in three ways: First, people might interpret some specific indicator data from routine monitoring as indicative of a problem. Second, a dramatic event, crisis, or focus event can reinforce some preexisting perception of a problem. Third, people learn from the feedback from the operation of existing programs. What constitutes a "problem" is a matter of interpretation. Change in an indicator --

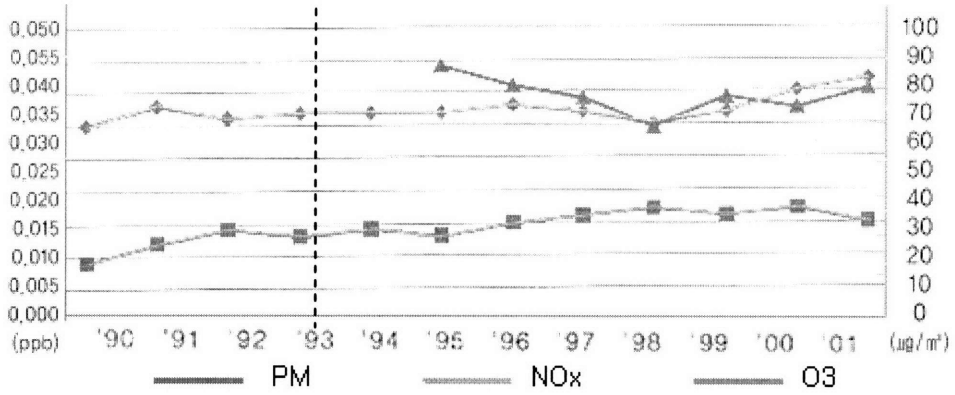
or no change despite certain policy measures designed to produce change -- can be interpreted as a problem (Kingdon, 1995).

Systematic indicator of air quality and problem in 1993

In 1982, the Ministry of Environment (MOE) issued a white paper on the environmental status of South Korea and initiated regulatory monitoring of air quality. By January 1993, when the first civil (nonmilitary) administration of Young-Sam (YS) Kim began, the growing and ambitious MOE were able to gauge the effectiveness of urban air quality management by reviewing some indicators for Seoul, the capital of the nation since 1990 (Figure 4-1).

The data from regular air quality monitoring in the capital city showed a progressive decline in SO_2, CO, and Pb concentrations, but no improvements in PM_{10}, NOx, and Ground-level Ozone (O_3) levels. The main reason these latter pollutant levels remained unchanged was the growing number of automobiles in Seoul. Diesel vehicles were particularly responsible for continuing high levels of pollution.





(Source: the web page of Blue Sky 21: http//bluesky21.me.go.kr)

Figure 4-1. Change of air pollutants in Seoul since 1990

Experts in and around government had suggested since at least 1993 that diesel vehicles were problematic. Diesel vehicles emitted 30 or 40 percent more particulate matter (PM), SO_2 and NOx than gasoline or LPG vehicles. To make matters worse, the numbers of diesel vehicles were increasing. By the end of 1992, they represented 37 out of 100 vehicles on the streets of Seoul. This was a very high number compared to other countries.[72] Large diesel vehicles, such as freight-carrying trucks and buses, accounted for only a small fraction of all vehicles, but emitted more than half of all emissions from mobile sources.

However, 60 percent of diesel vehicles were relatively small, for example, jeeps which weighed less than one ton. Functionally, these were no more efficient than gasoline, or LPG vehicles. Why were people choosing light-duty jeeps and other smaller vehicles powered by diesel over less polluting engines? Experts and government officials determined that the reason was fuel prices: Diesel fuel was quite cheap compared to other fuels. In early 1993, diesel cost 214 won per liter, while gasoline cost 610 won per liter, making diesel only slightly more than

[72] In 1993, US had diesel vehicles, accounting for only 3% of the total automobiles. In case of Japan, only 18% of the automobiles were diesel vehicles.

one third the cost of gasoline.

Diesel was so cheap in South Korea because, as explained by an official at the Ministry of Energy, the government had been controlling the price very strictly out of concern that increased diesel prices might negatively affect overall national price policy. Higher-priced diesel would result in higher residential and public transportation costs for citizens. Industry depended on cheap diesel to maintain their international competitiveness.[73] While other countries use diesel fuel mainly for transportation, South Korea uses half of its diesel fuels for household heating[74] and industrial purposes. It had been politically important to keep the price of diesel under the certain level.

Thus, in 1993 one dimension of the problem of urban air quality was framed as the relationship between relatively cheap diesel prices and serious urban air pollution (Figure 4-2).

In an effort to better manage urban air quality, it was clear that the MOE should deal with the emissions from large diesel trucks and buses first, and prevent the number of diesel vehicles from increasing. Energy policy was clearly a factor in such a strategy. One MOE officer argued that the government should reduce the price gap between gasoline and diesel to encourage consumers to choose gasoline or LPG when purchasing a new vehicle.[75]

---

[73] Mr. Kim, Dong-Won, Department head of Oil policy at the Ministry of Energy. Interview with Chosun Ilbo (Newspaper) (1993. 1.28).

[74] Especially, since the mid 80s, diesel boilers began to dominate households heating system in South Korea.

[75] Chosun Ilbo (1993. 1.28).

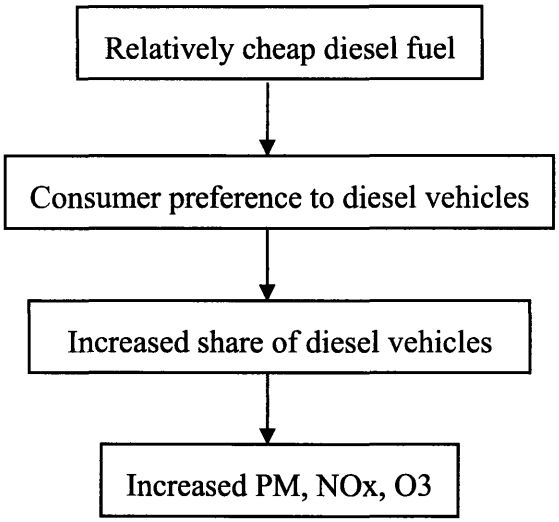


Figure 4-2. The relations between fuel price and air pollution identified in 1993

Recurring and worsening problems from 1993 to 2000

Following the discovery of the downward trend in urban air quality in 1993, the problem not only failed to improve, but worsened[76] (See Table 4-1). In 2002, South Koreans were shocked to learn that a report issued by the World Economic Forum ranked South Korea 135th among 146 countries in terms of the Environmental Sustainability Index. Among the categories in the index, South Korea's air quality was ranked 120th among 122 countries (World Economic Forum, 2002).[77]

By 2000, the MOE knew that automobiles were still responsible for 51 percent of total NOx emissions and 58 percent of total PM emission (Table 4-1). Diesel vehicles, which accounted for 30.1 percent of all vehicles, contributed 100 percent of total PM emissions and 75 percent of total NOx emissions from mobile sources.

[76] However, SO_2, CO, and Pb concentrations kept decreasing to the satisfaction of the MOE.
[77] Although Korea advanced itself to 122nd from 135th among 146 countries in 2005 index, Korea still ranked the worst among all the 29 OECD (Organization of Economic Cooperation and Development) countries in the list. (World Economic Forum, 2005)

Table 4-1. Emissions Inventory (2000) (unit: tones/year, (%))

Pollutant / Source	SOx	NOx	PM_{10}	VOC	CO
Total	74,562 (100.0)	292,470 (100.0)	15,328 (100.0)	270,468 (100.0)	342,595 (100.0)
Energy industry (Power generation, local heating, oil refineries)	15,771 (21.2)	18,764 (6.4)	263 (1.7)	1,432 (0.5)	9,754 (2.8)
Non-industry sector (Residential, and commercial heating)	9,723 (13.0)	39,177 (13.4)	772 (5.0)	1,514 (0.6)	18,865 (5.5)
Industrial sector	***29,700 (39.8)***	16,642 (5.7)	2,911 (19.0)	536 (0.2)	3,058 (0.9)
Manufacturing process	5,737 (7.7)	6,444 (2.2)	184 (1.2)	8,795 (3.3)	1,637 (0.5)
Energy transportation and storage	-	-	-	7,384 (2.7)	-
Use of organic solvents	-	-	-	***151,868 (56.2)***	-
Road mobile sources	3,446 (4.6)	***150,165 (51.3)***	***8,885 (58.0)***	49,055 (18.1)	***292,071 (85.3)***
Non-road mobile sources	9,326 (12.5)	53,959 (18.4)	2,144 (14.0)	5,849 (2.2)	16,076 (4.7)
Waste management	859 (1.2)	7,320 (2.5)	168 (1.1)	11,733 (4.3)	1,134 (0.3)
Biogenic sources	-	-	-	32,302 (11.9)	-

As more indicators became available, experts in and around the government, recognized that between early 1990s and 2000 some air quality problems had persisted and others had even been exacerbated. The urban situation became worse, with the percentage of emissions from mobile sources in Seoul exceeding 80 percent in the late 1990s (Table 4-2, Figure 4-3).

Table 4-2. Percentage of emissions from mobile sources in Seoul (from the MOE data)

Year	Mobile sources emissions (%)
1985	27
1990	49
1992	61
1994	77
1996	80
1998	82

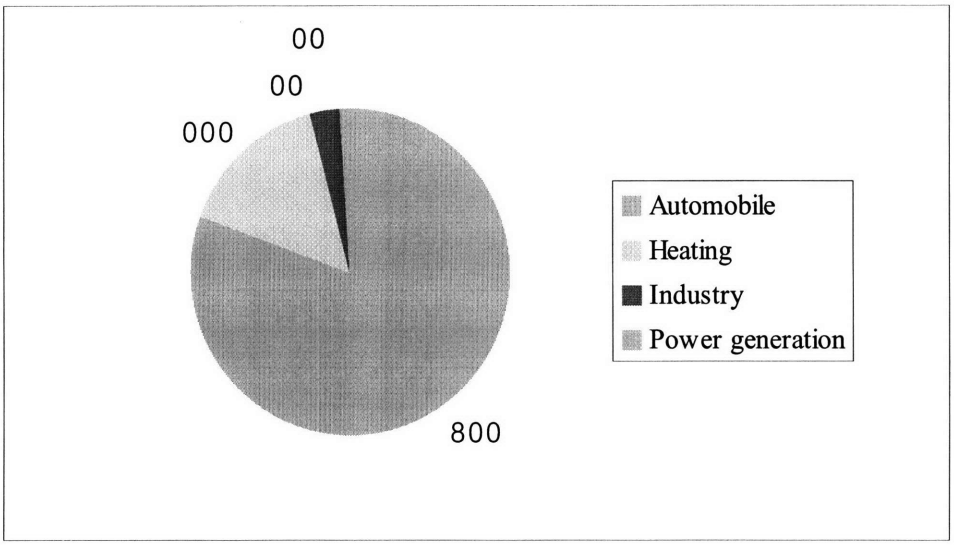


Figure 4-3. Air pollution emissions inventory in Seoul in 1997 (from the MOE data)

The share of diesel vehicles in the total mix of vehicles remained about the same throughout the decade. As shown in Table 4-3, the share of diesel dropped somewhat between 1993 and 1997 (blue), but rose again between 1997 and 2002 (red).

Table 4-3. The change of percentage of diesel vehicles among all automobiles (1993-2002)

Year	Share of diesel vehicles (%)
1993	**32.1**
1994	**30.8**

1995	29.7
1996	28.7
1997	28.3
1998	28.6
1999	29.2
2000	30.1
2001	31.4
2002	33.0

While diesel fuel price had been raised to 53 percent of gasoline price from 1992 to 2002, the gap between the prices of gasoline and diesel fuels was still not narrow enough to dissuade consumers from buying diesel vehicles (Table 4-4).

Table 4-4. Relative ratio of transportation fuel prices between 1990 and 2002

Year	Gasoline	Diesel	LPG[78]
1990	100	47	-
1991	100	47	-
1992	100	36	-
1993	100	34	-
1994	100	36	-
1995	100	39	-
1996	100	44	-
1997	100	45	39
1998	100	49	32
1999	100	44	24
2000	100	49	29
2001	100	50	34
2002	100	53	36

By 1995, diesel vehicles representing 34 percent of the total vehicles were emitting 65 percent of air pollutants from mobile sources. Large diesel trucks and buses, which were only six percent of the total vehicles, emitted more than half of vehicular emissions. In 1999, diesel

[78] The government started to categorize LPG into two types starting in 1997: for general use, including transportation; and for heating at city level.

vehicles were emitting 85.9 percent of the total NOx emissions, and 98.4 percent of the total PM emissions from vehicles. Large diesel vehicles such as trucks and buses, representing only 4.3 percent of the total diesel fleet, accounted for 65.9 percent of the total NOx emissions and 63.9 percent of the total PM emissions from mobile sources (Figure 4-4).

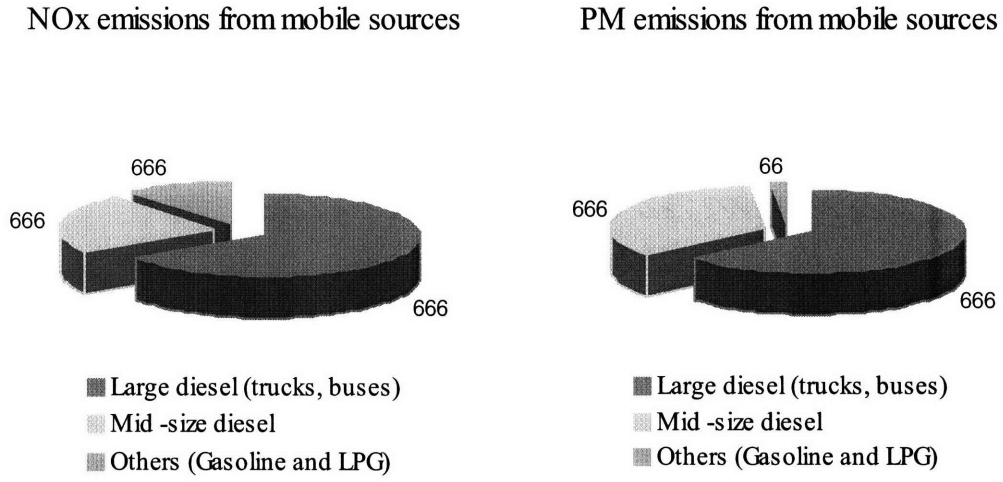


Figure 4-4. Contribution of diesel vehicle emissions to the total NOx and PM emissions from mobile sources (1999)

Of course, diesel vehicles were not responsible for all of the air pollution. In general, the number of automobiles in South Korea had increased exponentially from the late 1980s. In 1985, there were one million vehicles. By 1997, the number had reached 10 million. While growth was stalled during 1997 and 1998 due to the Asian financial crisis, the number kept growing through 2002 (Figure 4-5).

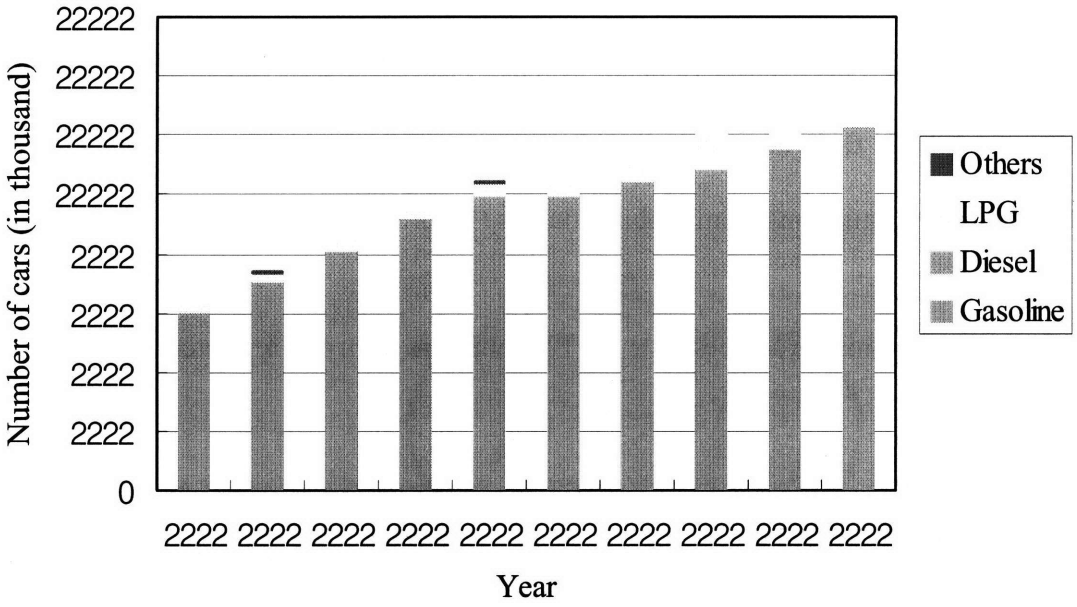


Figure 4-5. Increase in number of registered automobiles according to fuel type[79]

However, the rate of increase in the number of gasoline vehicles slowed gradually after 1991 and the share of gasoline vehicles among all automobiles dropped after 1997. Meanwhile, the share of diesel vehicles and LPG vehicles increased steadily (Figure 4-6).

[79] Data excerpt from 2003 Korea Transportation Statistics (KOTI, 2004)

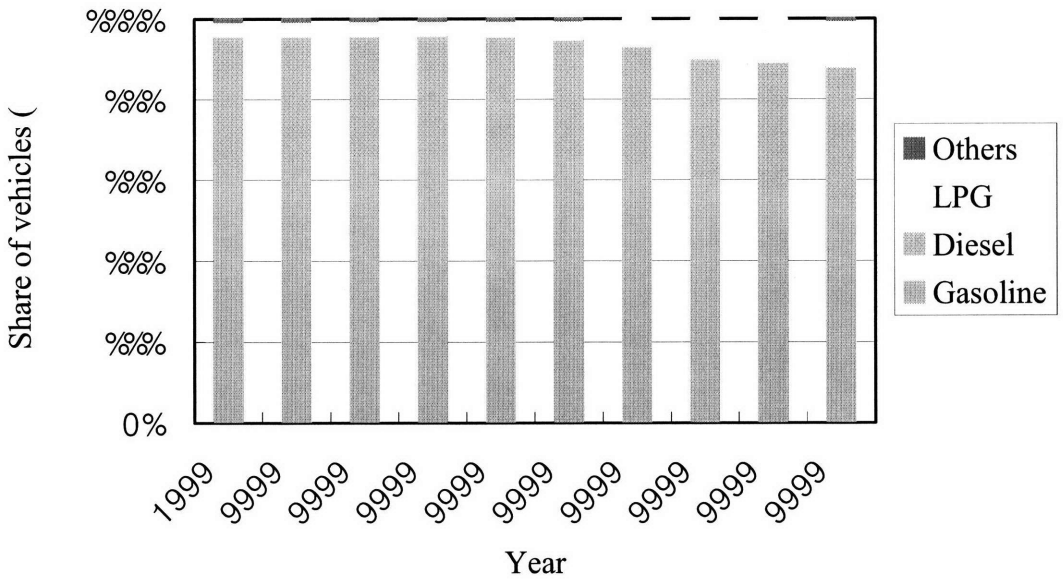


Figure 4-6. Share of automobiles according to fuel type.

The change in the proportion of vehicle by fuel-type was clearly related to the change in fuel prices. As shown in Table 4-4, the price of diesel (blue numbers) increased between 1992 and 1997 when the price was stabilized. In addition to the low price of diesel, increased gasoline prices also prompted consumers to turn away from gasoline vehicles in favor of diesel. For example, when the price of gasoline rose by 27.9 percent(from 373 won per liter in 1990 to 477 won per liter in 1991), the sale of diesel jeep-type vehicles increased by 89.5 percent (from 39,897 in 1990 to 75,595 in 1991).[80] The higher gasoline prices rose, the more diesel jeep-type and recreational vehicles (RVs) were sold. The hike in gasoline prices between 1995 and 1998 certainly affected the decisions of South Korean auto consumers (Figure 4-7). Even as the number of large diesel vehicles on the road dropped, it was offset by rapid sales of small and mid-sized diesel RVs particularly since the mid-1990s.

[80] 1997.11.4. Chosun Ilbo. "With increased gasoline price, the demand of diesel jeeps soared."

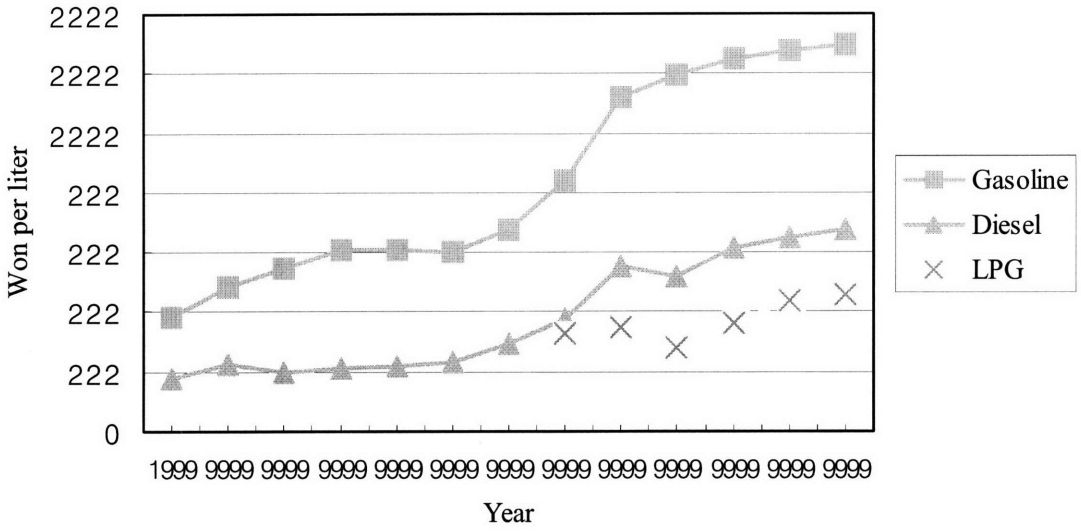


Figure 4-7. Change of transportation fuel prices between 1990 and 2002[81]

From 1993 to 2000, faced with recurring problems in almost every year, officials at the MOE and experts in research institutes and academia had to remind themselves that controlling automobiles was the key to curbing urban air pollution and protecting public health[82] and that problematic diesel vehicles should be dealt with. What had the government been doing to solve these problems? What solutions were other policy experts advocating?

Policy stream (1993 to 2000)

In the policy stream, people propose and refine policy proposals through academic meetings, public hearings, or government brainstorming sessions. They often generate solutions

[81] One US dollar is exchanged with 969 South Korean won in 2006.
[82] According to the research by the Korean Environment Institute and Soong-Sil University (1998), the social cost of air pollution from automobiles amounted to almost USD 1.9 billion. The social cost includes the medical costs of respirational patients and the costs of lost labor during hospitalization. Among the total cost, the costs associated with PM were about USD 1.2 billions. (Chosun Ilbo, 1998.7.22)

that are then applied to a range of problems.[83] Policy communities include experts in government and consulting on government issues,[84] environmental groups, and private industries. Politicians are also potential generators of solutions. However, in South Korea air pollution policy instruments are usually identified and developed by officials and experts within the MOE.

Urban air quality policy makers within the MOE had been very busy since the 1990s. They had been very successful in reducing SO_2, CO, and Pb concentrations but were still wrestling with the issue of emissions from the rapidly increasing number of mobile pollution sources, especially diesel vehicles. Since the 1990s, they had developed policy to address mobile sources and were gradually bringing them to fruition.

Introduction of CNG buses for conventional diesel buses

Beginning in 1991, the MOE with the help of other ministries provided USD 20 million in R&D funds to automobile research institutes to develop low-emission core technologies related to CNG (Compressed Natural Gas) engines. With CNG buses, PM could be reduced by 60 percent to 97 percent and NOx by 25 percent to 86 percent, compared to conventional diesel buses burning high-sulfur fuel. In addition, the price of importing natural gas was 50-70 percent less than that of crude oil. The CNG bus project was designed to stimulate energy source innovation in the transportation sector. As a result of this research program, four CNG buses

[83] Kingdon's favorite example is the case of urban mass transit, which is a constant policy proposal, and has been promoted as a solution to the problems of traffic congestion, then as a solution to the problem of air pollution.
[84] Each government agency operates its own research institute for the purpose of policy generation, and evaluation. For example, the Korean Environment Institute is sponsored by the MOE all the time. Also, the National Institute of Environmental Research (NIER) is directed by the MOE for scientific research associated policy measures. Other major research institutes in South Korea have strong ties with specific government agencies. Government officials review their research reports all the time. Other experts are from universities. Some professors often have contracted with government agencies for their research.

were finally deployed on real bus routes for an evaluation in 1998. To encourage participation by local governments and relevant industries, the MOE provided three types of support: 1) reducing natural gas prices[85] and subsidizing bus purchases (2.25 million won per vehicle, about one quarter of the total price of a CNG bus); 2) installing refueling facilities on publicly-owned lots and constructing bus parking lots; and 3) streamlining relevant regulations for tax support.[86] Three years later in November 2001, 232 CNG buses were running, supported by 11 gas stations in South Korea[87].

Installation of Diesel Particulate Filters (DPF)

As with the case of CNG buses, MOE policy makers adopted a technology fix for the pollution emissions of other diesel vehicles. Seeking an end-of-pipe technology to directly reduce particulate matter they realized that DPF (Diesel Particulate Filter) technology could prevent 80 percent of PM emitted by conventional large diesel vehicles. The Ministry began funding research to develop the technology in 1992. Several private industrial entrepreneurs undertook the challenge.[88] Their research efforts led to much lower priced filters, but not low

[85] Heavy investments are required because the CNG buses are more expensive than diesel buses and the construction of gas stations is necessary. It is therefore imperative to consider the reasonable profitability and return for initial investment by bus owners and operators. It is with reasonable profitability in mind that fuel prices need to be considered. The price of CNG must be set in tandem with other fuel prices, including diesel fuel, and the price range must satisfy both bus owners and gas suppliers.

[86] Some relevant laws were modified to exempt those who purchase CNG buses from value-added and acquisition taxes. As a result, the CNG bus among goods for environment protection has become a sole item exempt from VAT. If viewing the tax deduction as financial aid, it is worth USD 9.2 million in year 2000 and USD 167 million by 2007. In addition, environment improvement charges imposed on diesel vehicles were obviously exempted for the CNG buses.

[87] In 1999, the MOE planned to replace all 20,000 city buses nationwide by the year 2007. (1999.2.19. Chosun Ilbo). In September 2005, the total number of CNG buses was 7902. (2005.11.29. Donga Ilbo).

[88] Five industries, such as Yukong, Mando, Doowon, Hyundai, and Changwon ventured into the DPF (Diesel Particulate Filter) market by developing their own filtering technology in 1992, when US companies failed to

enough to entice bus companies to purchase their products. They needed government support to reduce installation costs. According to a newspaper interview with a chief researcher in a laboratory devoted to DPF development:[89]

> *"There are people who argue for the development of clean diesel engine rather than DPF technology as a priority to solve air pollution from diesel vehicles. However, it will take more than 10 years for South Korean automakers to develop the clean diesel engines, which are currently available in advanced countries. Should the public put up with such serious air pollution for ten years or more until the clean diesel engine is available? Also, in benchmarking the technology, we will have to pay enormous royalties to those advanced countries. Thus, the DPF technology we developed is a more viable and cost-effective option for the current situation. Consider the pain the public is feeling from exhaust gases from diesel vehicles and the social cost associated with it. It's a national problem, which requires government action. The only problem for the DPF is the still high installation cost. We need the investment from the government and the society to lower the price so that bus companies may buy the filters."*

In 1996, the MOE began to issue certification to companies developing DPF technology.[90] In a pioneer project, the Ministry purchased DPFs for 1,400 city garbage trucks. It also used loans to lower the cost of installing DPFs on Seoul city buses. However, the MOE and DPF industries were unable to induce city bus companies to install DPFs on their vehicles at that time.[91] The fund from which the loans were derived was redirected to the CNG bus project in 1998.

---

popularize their filters due to the high price (almost USD 10,000 for installing a filter) and few consumers. In the US, diesel vehicles accounted for only 3% of automobiles. These South Korean companies saw the potential of the diesel particulate filter in South Korean market, given that there was a large share (over 30%) of diesel vehicles among automobiles and those vehicles were regulatory target for their enormous contribution to air pollution.

[89] Chosun Ilbo (1997 1.09). 'Automobile emissions tackled with domestic technology' In a newspaper interview, Chung, Hyun-Jong, a chief researcher at Yukong Energy and Environment Institute.

[90] Chosun Ilbo (1997.2.27). 'Competition of four companies for DPF market"

[91] However, the MOE's effort became fruitful when the Special Act for Air Quality Management in Seoul Metropolitan Area went into effect in 2006. The MOE and the local government provided subsidy to cover almost all cost of installation of DPF for fleet owners and individuals with old diesel vehicles. The installation of DPF became mandatory if the vehicles fail to pass emission test starting 2006.

Imposition of environment improvement charge on diesel vehicles

In March 1994, the MOE began to impose an environment improvement charge as a negative economic incentive on 1.9 million non-commercial diesel vehicles such as jeeps, Recreation Vehicles (RVs), vans, and personally owned trucks. Six months later, the MOE announced that it would gradually raise this assessment by 2.5 times by July 1997, and would include diesel dump trucks and mixer trucks which were originally exempted from the charge.[92] As diesel fuel prices increased between 1994 and 1997, the environment improvement charge on diesel vehicles also helped raise the management cost of diesel vehicles. Little by little, the share of diesel vehicles among the total number of automobiles dropped (See Figure 4-6).

Improvement of fuel quality

The MOE successfully introduced unleaded gasoline in July 1987, leading to the complete elimination of leaded gas in early 1993. Meanwhile, the high sulfur content of diesel fuel continued to contribute to high PM emissions. Recognizing that low-sulfur fuel was also essential for clean diesel engines in the future, the MOE focused on increasing the supply of low-sulfur fuel. Since the early 1990s, the sulfur content in diesel fuels had been gradually reduced. In 2000, the MOE negotiated an agreement with the oil companies[93] that they would reduce sulfur content in diesel fuels from 500 ppm to 430 ppm in 2002, and to 50 ppm in 2006[94] (Table 4-5). From this measure, the MOE expected a reduction of 2,600 tones of PM (3.5 percent) from diesel vehicles.

---

[92] Chosun Ilbo (1994.3.10).

[93] Chosun Ilbo (2000.03.05).

[94] They also negotiated that the sulfur content in Gasoline would be reduced from 200 ppm in 2000 to 130 ppm in 2002, 30 ppm in 2006.

Table 4-5. Change of maximum sulfur content in diesel fuel since 1991.

Application period	**'91.2. – '92.12.**	**'93.1 – '95.12**	**'96.1 – '98.3**	**'98.4 – '02.1**	**'02 – '06.1**	**'06.1**
Sulfur content (ppm)	4000	2000	1000	500	***430***	***50***

Creation of the Air Quality Management District

In June 1997, the MOE created the Seoul Metropolitan Air Quality Management District (SMAQMD) by merging Seoul and 17 adjacent cities in order to develop consistent regulations for the whole area. The plan was similar to the US's SIP (State Implementation Plans). Local governors, on the basis of public hearings, prepared plans to reduce air pollution; the plans were submitted to the Minister of the MOE for his/her approval.[95]

Upgrade of emissions standards for newly manufactured automobiles

The emissions standards for newly manufactured automobiles have been strengthened numerous times by the MOE in order to force the auto manufacturers to develop engine technologies that generate fewer pollutants. However, South Korean standards lagged far behind those of advanced countries of North America and Europe. For example, for gasoline automobiles in 2000, Korean standards were equivalent to EURO II of the European Union and TLEV of the United States. For diesel vehicles, an important change in emission standards was made in 2000. This was critical to the development of the dispute to be discussed in detail in the next chapter.

[95] Chosun Ilbo (1997.6.30).

Other important policy proposals

Policy makers and consultants proposed several solutions to the problem of urban air pollution based on their individual definitions of what the problems were. They tried to generate public interest in their proposals through media dissemination of indicators showing the scope of the problems. In fact, these solutions did not represent new ideas. Most of the suggested measures were based on the experiences of other countries and the recommendations of international organizations.

Some experts advocated manufacturing more mini cars, or compact cars, which polluted less than large-sized passenger cars with high fuel efficiency (Table 4-6). They sought government incentives to help overcome the preference of South Korean customers for large passenger cars symbolizing high social status.[96]

Table 4-6. International comparison of the share of mini passenger cars

Country	South Korea ('96)	Japan ('95)	France ('95)
Share	4.5%	14.6%	39.0%

Other policy experts supported investment in public transportation, extending metro lines and enhancing bus services to increase the use of public transportation and reduce the mileage traveled by personal vehicles in South Korea (Table 4-7, Table 4-8). Some suggested compulsory "no-car days" (an experiment attempted in Mexico City) when the Seoul city government issued several ground-level Ozone pollution alerts on consecutive days during the

[96] In 1992, Daewoo Motors Company manufactured the first Korean mini car, Tico. The model was popularized for its low management cost with high fuel efficiency. However, even if the government imposed less tax on the model, the demand did not grow to the expectation of the government and auto industry. In 1994, only 3.4 % of the passenger cars were mini cars. While the share of mini cars increased up to 14 % of all passenger cars in South Korea in 2003, the number was still very lower than those of other advanced countries such as Italia (45%), France (36%), Japan (26%) and England (17%).

summers of 1997 and 1998.[97]

Table 4-7. Comparison of the mode share of public transportation in 1995

City	Seoul	Tokyo	New York
Share	66.5%	81.7%	86.0%

Table 4-8. Comparison of the Vehicle Kilometers Traveled (VKT) in the country in 1995

Country	South Korea	Japan	US
Distance	23,000 km	10,200 km	14,700 km

Gradual increase in diesel fuel price

The problem of the relatively lower diesel fuel price had been raised consistently in and around the MOE.[98] Several times, the MOE announced its intention (or wish) to discourage the increase in diesel vehicles by raising diesel fuel prices.[99] However, control of energy prices lay in the jurisdiction not of the MOE but of the Ministry of Commerce, Industry and Energy (MOCT) and of the Ministry of Finance (MOF). For this reason the gap between diesel and gasoline prices was not narrowed until 2000 despite the advocacy efforts of environmental NGOs, the MOE, and other experts.[100]

In September 2000, the government announce officially that the relative ratio of three energy prices (gasoline, diesel, and LPG) would be adjusted to 100:75:60 until July 2006 (Table

[97] In 1997, there were 96 violations against PM standard in Seoul.
[98] In March 1997, Mr. Cho, the Mayor of the city of Seoul, announced that the city government would rather manage its air quality independently from the central government, commenting that current government policy could not be up to the problem of air pollution in Seoul. In South Korea, decentralization began in 1995. Thus, the elected Mayor could be more influential then before. Mr. Cho asked for the government to increase diesel fuel price by 41.2%. (Chosun Ilbo, 1997.3.22) 'City of Seoul may restrict diesel vehicle registration'
[99] Chosun Ilbo (1999.9.27). '[MOE] proposed to increase diesel fuel price against the increase of diesel vehicles.'
[100] In practice, absolute diesel fuel price had been increased (Figure 4-7). But, I focus on the relative ratio of the two fuel prices.

4-9). The next chapter explores how this proposal became possible and how this adjustment during 2000 and 2001 led to the dispute to be analyzed in the case study.

Table 4-9. Proposal to adjust the relative ratio of three transportation fuels (2000)[101]

Year	Gasoline	Diesel	LPG
2000.7	100	47	26
2001.7	100	52	32
2002.7	100	56	38
2003.7	100	61	43
2004.7	100	66	49
2005.7	100	70	54
2006.7	***100***	***75***	***60***

The above two sections have described 1) what kinds of problems and their causes were identified during the 1990s, and 2) what kinds of solutions were advocated and tried during those years. The next section shows how the politics of this period made these solutions possible. These three streams—problems, policy development, and politics—represent "conventional" elements of problem solving, in contrast to a new, innovative stream through which consensus-building processes with multi-stakeholder participation contribute to the resolution of public disputes. The case-study chapter explores the value of including this new stream in decision making.

Politics stream (1993 to 2000)

According to Kingdon's model of policy change, policy outcomes depend on how the three streams (problem, policy, and politics) merge to create a resolution in the end. The stream

[101] MOCT (2000). 'Proposal to rationalize energy price'

of politics which ran through the 1990s paralleled the stream in which policy entrepreneurs grappled with methods to control air pollution. The politics stream runs independent of policy and on its own terms. Political events include changes of administration or in Congress; shifts in national moods; interest group campaigns; and other external events such as financial crises. Kingdon's model posits that there are moments when a problem is recognized, a solution is available, and the political conditions are right so that the three streams can be brought together by policy advocates entrepreneurs. The moment represents an "open policy window" as defined in previous chapters. This section outlines factors in the politics stream which were external to and independent from the problem and policy streams, but affected the policy-making processes.

External focus event

Kingdon first deals with focusing events that occur in the problem stream. Such an event can increase the visibility of an issue, and move it up on the governmental agenda. Focus events such as crises, disasters, or symbolic events can reinforce preexisting perceptions of a problem and focus public attention on it (Kingdon, 1995). However, it is also possible to consider such external events as factors in the politics stream insofar as policy makers and advisers can utilize them as opportunities to further their ideas.

One example of an external focus event was the 1988 Summer Olympic Games hosted by South Korea. The air quality of Seoul, which had been seriously compromised by the late 1970s, suddenly became an urgent policy issue when Seoul was awarded the Games in 1981.

Decision makers and the public wanted the city to appear clean to thousands of visitors from around the globe.[102] To improve Seoul's air quality, the South Korean government

[102] China is doing similar things for 2008 Summer Olympic Games in Beijing.

immediately began to supply lower sulfur content gasoline in 1981; strengthened vehicle emission standards in 1987; and mandated the supply and use of clean fuels, such as LNG (Liquefied Natural Gas) in large cities in 1988.

Another interesting opportunity in the late 1990s forced South Korea to give more attention to urban air pollution. South Korea was chosen in 1997 as one of the two countries to host the 2002 World Cup Soccer Games. Decision makers adopted several temporary steps to ensure an environmentally friendly World Cup venue for June 2002. The MOE began retrofitting diesel buses in the hosting cities with Compressed Natural Gas (CNG) technology;[103] helped the oil industries supply low-sulfur (less than 15 ppm) diesel in the Seoul metropolitan area during the games; and encouraged people not to drive their cars every other day during the games. As a result, the level of PM in Seoul in June 2002 fell by 22.2 % from the same month of 2001 (81→ 63 $\mu g/m^3$ per day).

Encouraged by the success of these temporary measures, the MOE then implemented the post World Cup Environmental Measures, pushing to put even more CNG buses on the road. The goal was to retrofit all of the 20,000 diesel buses under its jurisdiction by 2007.[104]

The MOE was abetted in the movement to clean up urban air for the 2002 World Cup by environmental NGOs, which had not been active in the effort to improve air quality for the 1988 Olympics. The three major environmental NGOs[105] in South Korea formed the a "Blue Sky 2002"coalition on April 22, 2001, Earth Day. The objective was to inspire public support for

[103] As of June 2002, 2,046 buses were distributed for operation mostly in host cities. (MOE website)
[104] From the MOE website. 'Environmentally Friendly World Cup http://eng.me.go.kr/user/policies/1_policy.html?msel=b1
[105] Korean Federation of Environmental Movement, Citizens' Movement for Environmental Justice, and Green Transport.

clean venues for the World Cup Games. The NGOs began monitoring air quality in the hosting cities, made air pollution maps, and conducted campaigns to use more public transportation.

Ironically, the 2001 coalition was the foundation for the core alliance of environmental groups for the issue of diesel passenger cars later, which was the major actor in the consensus building efforts in my case. Thus, while the World Cup Soccer event did not inspire fundamental change or affect urban air quality management, the establishment of the NGO coalition triggered the civil organizations to initiate their own programs and stimulate public interest in managing urban air quality.

Symbolic moment of the era of ten million automobiles

By July 1997, South Korea had 10 million automobiles on its streets. This dramatic figure symbolized a new era to the Korean public. There had been only one million cars in the country in 1985. Some considered the rapid growth of automobile ownership an indication of economic prosperity of which South Koreans might be proud. Others saw in this development a threat to the quality of life from traffic congestion and air pollution.

The Ministry of the Interior (MOI), the Ministry of Construction and Transportation (MOCT), and the MOE each seized this moment to generate policy proposals for a "comprehensive program for transportation and pollution in the era of 10 million automobiles." The MOI declared that it would build 21,000 km long bicycle roads and 10 million bicycle parking lots throughout the nation by 2010. The MOCT announced that it would extend city railroads, including subways, metro, and light trail by 1,461 km by 2011 in the country's six major cities[106].

[106] Chosun Ilbo (1997.7.14).

The MOE proposed a comprehensive proposal for automobile pollution. The Minister of the MOE said that the goal of the proposal was to reduce automobile emissions by 45% by 2000. The objective for PM concentrations in Seoul was a reduction from 72 $\mu g/m^3$ in 1997 to 50 m^3/m^3 in 2000 to 40 m^3/m^3 in 2005. Ground-level Ozone was to be reduced from 0.16 ppm to 0.12 ppm in 2000 to 0.10 ppm in 2005.

To achieve these programmatic goals, the MOE proposed that automakers should devote two percent of total production to ultra-low emission vehicles, such as CNG buses every year beginning in 2000 and that diesel particulate filters (DPF) would be installed on 65 percent of all operating large diesel vehicles (about 550,000) by 2001. The MOE used this moment to investigate a wide array of policy options and instruments. The most interesting proposal was to increase diesel fuel prices to 80 percent of the price of gasoline by 2000.

However, these ambitious goals were not met. In 2000, PM and O_3 levels were still high and diesel fuel was still only 49 percent the cost of gasoline. Mandatory installation of DPF in diesel vehicles was not realized until 2005.

Cycle of long-term government planning

Sometimes, the initiation of government proposals is embedded in the cycle of long-term government planning. When a cycle ends, the government evaluates its programs prior to making its next long-term proposals. People in government know when their budgets are rising or falling and what problems directly affect them through the budget process (Kingdon, 1995).More proposals by a certain ministry mean it will receive more funding. As each new cycle of long-term planning begins, policy analysts work hard to promote their own solutions to problems.

In October 1990, the South Korean Parliament enacted the Framework Act on Environmental Policy. According to the Act, the Minister of the Environment is required to formulate long-term plans every 10 years[107] and mid-term plans every 5 years.[108] The first long-term environmental plan in South Korean history was made in 1992. The plan enabled the MOE to initiate R&D funding for the development of CNG and DPF technologies in that year.

The first mid-term plan (for 1997 to 2001) was written at the end of 1996. This explains the timing of the large number of proposals for air pollution mitigation in 1997. By coincidence, the year 1997 also included the symbolic moment when the number of automobiles in South Korea reached 10 million. Implementation of the second mid-term plan was complicated by the Asian financial crisis of 1997-1998. In addition, the commencement of the new administration of Dae-Joong (DJ) Kim, the so-called, "People's government," in February 1998 precipitated personnel changes in the MOE. These two factors led to adjustments to the second mid-term plan in terms of timing (from 1997 – 2001 to 1998 - 2002).

During 2001 and 2002 the MOE prepared new urban air pollution policy measures for the third mid-term planning period (2003 – 2007), as well as for the second 10-year planning period (2003 – 2012) prior to the inauguration of a new government in February 2003. As a rule, an administration is most powerful in its first year when it embarks upon its mission and announces its vision to the public. If a policy agenda is not enacted in the early period of a new administration, it is less likely to be enacted at all unless dramatic events thrust the issues addressed in the original agenda into the public eye.

The circumstances of 2001-2002 offered a major opportunity for the MOE to promote its policy proposals and gain a major share of the budget and manpower resources coveted by other

[107] Article 12 of the Framework Act on Environmental Policy
[108] Article 14 (2) of the Framework Act on Environmental Policy

ministries while, at the same time, promoting cleaner skies.

Financial crisis

The Asian financial crisis of 1997-1998 exposed longstanding weaknesses in South Korea's development model and caused the growth rate to plunge to a negative 6.9 percent in 1998. South Korea recovered strongly, with a growth rate of 9.5 percent in 1999, and 8.5 percent in 2000. However, during the economic difficulty, a downturn in consumer spending affected the trends associated with urban air quality management.

People bought fewer new vehicles and turned toward relatively cheap diesel fuels. Thus, stalled economic activities had the effect of lowering PM and NOx in 1998 (Figure 4-1). However, growth in the share of diesel vehicles and the relatively low price of diesel fuel negatively changed from 1997.

While the external financial crisis was not directly associated with urban air pollution, it conveyed alarming signals to the policy community concerned with urban air quality management. Despite the MOE's efforts up to 1997, a whole new and problematic situation began due to the financial crisis. Its impact partly explains why the air quality in 2000 was similar, or worse than that in 1993. The MOE had to do something to correct the unexpected downward trend in air quality.

Issue attention cycle and budget issue within the MOE

Because a government agency cannot do everything at once, it is necessary to explain why it should emphasize one issue over another at any given time. The MOE deals with air, water, soil, forest, waste, and so forth. The budgets for each of these bureaus are not always evenly distributed. Some receive more attention and leverage than others at any particular time. For

each particular timeframe affecting the case studies, it is necessary to determine which specific issues were dominating attention at the MOE.

South Korea's hosting of the 1988 Summer Olympic Games stimulated public attention to urban air pollution prior to the events. After 1988, no major events associated with urban air pollution happened in South Korea.[109] However, in 1991 a water-related environmental disaster hit the country.

On the night of March 14, 1991, 30 tones of phenols were inadvertently discharged to the Nakdong River for eight hours from the Doo-san Electronics facility located in the city of Goomi. No one at the factory reported this mishap to government officials. As a result, the phenols penetrated the drinking water supply facility of the city of Taegoo. City residents immediately noticed an obnoxious smell emanating from their tap water. In an effort to alleviate the public's anger, and distrust against the government, only two weeks later, on March 28, the MOE announced policy measures to prevent further mishaps.

This disaster was the first environmental accident to affect the urban public, and forced the MOE to focus its energy on water issues. Accordingly, the MOE established the Comprehensive Measures on the Provision of Clean Water in 1993. Some of the measures were very costly, such as construction of waste management facilities, which tied up most of the MOE budget in water quality management.

This emphasis continued to occupy most of the attention of the MOE. Considerable energy and funding was devoted to establishing the Comprehensive Water Quality Management Measures for the Four Major Rivers[110] between 1998 and 2000. To ensure the smooth

---

[109] Before 1991, environmental disaster was a word for rural residents living nearby industrial complex. They suffered from wasted water and air pollution from industrial facilities. But, urban residents could not feel directly the severity of such problem in their urban areas.

[110] The four major rivers are the Han River, Nakdong River, Geum River, and Sumjin River, which meet the water

implementation of these measures through legal backing, the MOE used its influence to support enactment of the Special Act on Watershed Management and Community Support between 1999 and July 2002. The officers at the MOE, including the Minister, had been engaged on water quality issues in 420 discussion forums, and public hearings with stakeholders including residents, local governments, and experts over a period of five years from 1998 to 2002. From 1991 until 1998, the MOE spent USD 17 billion on water management, accounting for almost 70 percent of the total budget for the MOE.

What was the fate of the budget for the air bureau? The budget for air quality management had been less than five percent of the budget for water quality management (Table 4-10). Of course, the budget is only one of the factors underlying the power of the bureau, and does not always reflect the level of attention on, or importance of the specific issue. However, given the assumption that the budget for the MOE was constrained at a certain level, water quality management issues had gained a disproportionate share. Many experts complained about this trend in the MOE, arguing for more resources to address serious urban air pollution[111].

Table 4-10. Comparison of the budgets (USD million) for water and air quality management of the MOE (1998 – 2002)

Year	1998	1999	2000	2001	2002
Water	1,131	1,153	1,302	1,414	1,433
Air	7.4 (0.7 %)	9.5 (0.8 %)	46.5 (3.5%)	61.5 (4.4%)	64.7 (4.5%)

Once the MOE finalized its major water quality management by successfully enacting the Special Act on Watershed Management and Community Support, the air bureau was able to

needs of more than 40 million Korean people.
[111] Chosun Ilbo (1998.12.12) 'Ignored air pollution'

request a greater share of the total MOE budget in 2002. Having completed its major thrust in water quality, the Agency needed a new focus.[112] Air quality was an appropriate candidate.

Rivalry between the MOE and the MOCT in regulatory processes

For an environmental regulatory proposal to go into effect as a regulation, it must first be circulated around other Ministries which may have stakes in the content of the proposal. After coordinating with other Ministries, the MOE puts the adjusted proposal through a public notice and comment period. After adjusting the content of the proposal according to public comments, the MOE sends the final proposal to the National Assembly, where politicians debate and convert the proposal into a regulation. Thus, in the course of a regulatory process, there are many points of coordination and communication where conflict might arise.

An analysis of the processes behind regulations passed by the National Assembly revealed some cases of political disputes on the issue of environmental regulations during the 1990s. Enactment of many environmental regulations was delayed by political gridlock in committee meetings. Such regulations included proposals on the designation of natural conservation areas, the siting of waste treatment facilities, the conservation of wetlands, and the protection of riverheads as water source. These proposals had in common aspects which might have affected localized interests. Several politicians representing those local constituents in their jurisdiction blocked the passage of the regulations.[113]

At the level of the National Assembly, there were no conflicts on regulations for air

---

[112] Sometimes people in government feel they have solved a problem. Even if it is questionable whether governmental officials have solved a problem, they sometimes feel that they addressed it by passing legislation or making an administrative decision. If they have, they turn their attention elsewhere, and then that subject drops from their agendas (Kingdon, 1995).

[113] Chosun Ilbo (1997.7.19) '[National Assembly] Most environmental bills pended', '[Environmental bills] Drifting environmental bills due to conflicts of interests among local constituents'

quality management, not only because air pollution is relatively insulated from localized interests, but also because the general public since the mid 1990s considered urban air pollution the most serious environmental problemon the national agenda.[114] However, a tougher challenge to the air pollution proposal by the MOE came from the Ministry of Commerce. Considering the web of interests that the two Ministries pursue, their conflicts seem unavoidable. The MOE sought to regulate, by a command-and-control process the emissions of automobiles, forcing technical development through standard setting. Automakers saw themselves as constituents of the Ministry of Commerce, mandated to boost economic development by helping industry. As the economic situation in the '90s became worse, the Ministry of Commerce pushed back hard against the MOE.

For example, when the MOE showed its intention to require the installation of DPFs on large diesel vehicles such as city buses, introduce CNG buses, and construct more than 300 CNG gas stations in 1997, the Ministry of Commerce opposed fiercely the proposal. The Ministry of Commerce argued that the proposed MOE plan would burden the auto industries and bus companies at a particularly bad time by requiring them to install expensive filters in the context of an economic downturn and consequent overstocking of products. The powerful Ministry of Commerce said that the MOE's plan should be postponed, considering the contribution of the auto industries to the national economy.[115]As a result, the MOE's plan was not fulfilled as quickly as the MOE intended.

---

[114] The public poll for residents in Seoul in 1997 conducted by the City of Seoul revealed that 31.8% of the people considered urban air pollution the most serious problem, 26.8% believed waste problem as the most serious, and 26.6% of the people selected water pollution as the most serious problem. In addition, there was a poll survey for 481 foreigners residing in Seoul with the same question. 40.2% of the foreigners indicated urban air pollution as the biggest problem of Seoul. For the water pollution, only 13.5% foreigners said yes. That trend continued until 2000. The public poll in 2000 said that 97% of the people thought that urban air pollution was in very serious condition.
[115] Chosun Ilbo (1997.4.10). '[MOE vs. Ministry of Commerce] Conflict on the automobile regulations'

Ineffective coordination system within the government

How did the MOE navigate tough situations with private stakeholders as regulatory targets, such as auto industries and oil industries, and with other Ministries within the government? First, when businessmen complained about regulation, the MOE often had private meetings with company officers to hear their opinions, explain its intention, and sometimes make deals with them. Second, the Office for Government Policy Coordination (OGPC) was available to function as a mediator, when conflict arose among government agencies. However, the chief officer of the OGPC presided only over Vice-ministerial meetings and could not extend his/ her influence at the ministerial level. When no accommodation could be reached among the Vice Ministers, the conflict was transferred to the higher level of Ministers. A power game among the Ministries ensued. The more powerful Ministers, usually of the economy or finance-related Ministries, could wield considerable power over the policy outcomes. At this stage, Ministries usually attacked other Ministries by using the media and tapping into other political sources (Environmental Journalist club, 2001)[116].

Multiple streams (1991-2000) and Implications for the next chapter

The previous sections described policy making about urban air pollution during the 1990s in South Korea by using Kingdon's multi-stream framework of policy change. This analysis will also form the backdrop for the upcoming case study of public dispute resolution between 2001and 2003.

[116] The environmental journalist club (2001). "The reason why salmons do not return."

While Kingdon's model is grounded on American politics and policy making, it is very helpful in figuring out why some policy proposals to alleviate urban air pollution in South Korea came about in a specific period of time, why others did not, and why some policy measures were implemented well and others less well. Many premises of Kingdon's model could be applicable to air pollution policy making in South Korea during the 1990s.

Experts and MOE officers wanted to demonstrate that solutions generated by the policy community were applicable to real problems which could be addressed through the policy process. They continuously revealed negative indicators of serious air pollution to the media, even when the data implied that the MOE had not done a good job in its mission. They also compared South Korean air pollution to that in other countries, especially in the advanced world.[117] They were successful in branding diesel vehicles as powerful symbols for very dirty air and diffusing this image of diesel vehicles to the public.

In the meantime, external factors in the politics streams, independent from the problem and policy streams, arose. These factors affected the behaviors of policy entrepreneurs and hence the policy outcomes. When a "policy window" opened, policy entrepreneurs tried to join the streams together and push their proposals. When the window closed, they had to wait for the next chance.

As Kingdon (1995) suggests, there was no single-factor explanation for policy making to combat air pollution in South Korea during the 1990s. Several things had to come together at once for policy to be made. The model is so probabilistic that we can only guess the odds that something might happen, rather than say that something will happen. This helps to explain air

[117] If one is not achieving what others are achieving, then the relative disadvantage constitutes a problem. The mere fact of being behind in the greatest country on earth is enough to constitute a problem for some people (Kingdon, 1985)

pollution policy making during the 1990s, which does not map well onto a rational decision-making process model. The Kingdom framework also helps explain why a problem of urban air pollution, such as emissions from diesel vehicles, persisted until 2000, even though everyone had known there was a problem and what the solution was since at least 1993 (Figure 4-8).

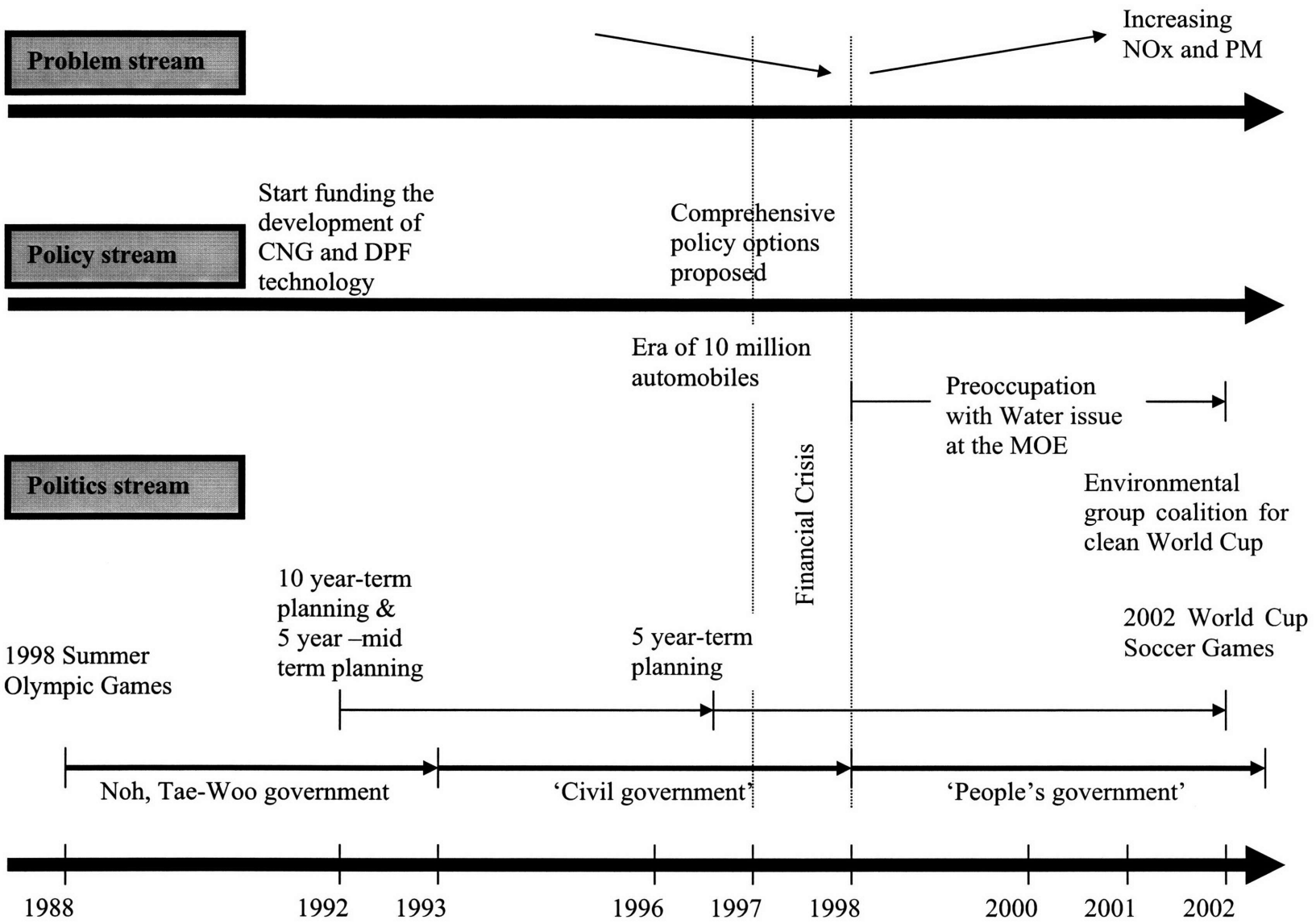


Figure 4-8. Multiple-streams for urban air pollution policies in Korea (1988-2002)

What the MOE formulated and tried to implement were policy instruments such as setting emission standards for automobiles and clean fuels, encouraging the development of clean technology like CNG, and DPF; these lay within the MOE's jurisdiction. However, changing fuel prices was not under the jurisdiction of the MOE, but rather the Ministry of Commerce, Industry, and Energy, and the Ministry of Finance. Thus, unless the other Ministries coordinated with the MOE in changing fuel prices, it would be difficult to achieve the MOE's goals.[118] Also, even though the MOE tried hard to curb urban air pollution, the rapidly increased number of vehicles offset the emissions reductions achieved through policy implementation. Those two factors may explain the continuity of serious air pollution until 2000.

What are the idiosyncratic features of South Korean policy making to reduce urban air pollution during the 1990s? In the next table, I will compare distinct South Korean features with general features of Kingdon's policy stream and politics stream (Table 4-11).

First, in Kingdon's policy stream, specialists (or, experts) constitute policy communities. They are usually from research institutions, academia, inside government, private companies, NGOs, and congressional staffers. In the issue of urban air pollution in South Korea during the 1990s, policy communities were mainly composed of technocrats within the MOE, technical experts from government research institutes, and university

[118] Coordination among Ministries is necessary to implement effectively CNG bus projects. The MOE takes part in developing the CNG technology and encouraging its distribution. The Ministry of Commerce, Industry, and Energy (MOCIE) should lower the price of National Gas. The Ministry of Construction and Transportation (MOCT) should facilitate the selection of the site of natural gas station. Finally, the Ministry of Finance (MOF) should streamline the tax regulation as economic incentive to CNG buses.

professors, whose research was sponsored by the MOE. Sometimes, researchers in a private company participated in developing clean technology.

Technical experts dominated the policy stream in the 1990s because air pollution policy requires scientific and technical expertise as well as economic expertise. There was far less participation from experts than from NGOs[119] or congressional staffers in developing ideas, selecting ideas, and debating the merits in the policy communities. Not until 2001 when NGOs built a coalition prior to the World Cup Soccer Games that the issue of urban air pollution attracted the attention of environmental groups.[120] Thus, the role of the MOE was the most important in the policy community. South Korea was built on government initiatives, a fact that ran very deep in the public's thinking during the 1990s.

In Kingdon's terminology, those policy specialists were influential in arenas such as public hearings, mass media, and academic proceedings, where they could build consensus on the list of possible policy options by arguing the merits of certain policy options, criticizing others, recombining old elements of previous policy options, educating others, narrowing alternatives, and diffusing ideas.

The list of options for urban air pollution policy making was already on the table. They had been developed elsewhere, usually in advanced countries, and needed to be evaluated for the South Korean context in terms of technical, economic, and political feasibility. Technical and economic feasibility were usually evaluated by policy experts

---

[119] Policy experts associated with NGOs are usually university professors.

[120] During the 1990s, only one event was held with NGO's participation as to air pollution. That issue was about long-range transboundary air pollution in East Asia. So, environmental groups from six countries (China, Hong Kong, Japan, Mongol, South Korea, and Taiwan) built a network for air quality (The Atmospheric Action Network for East Asia).

within the government. The MOE dealt with political feasibility by listening to the reaction to their statements from stakeholders in the media, and by contacting stakeholders in public hearings and in private meetings. The process of constructing regulations as a quasi-legislative function had been totally hidden from public view.

An interesting feature in South Korea during the 1990s is that while it did not seem difficult to build consensus within the policy community on the list of policy options, other Ministries such as the MOCIE, and MOCT often challenged consensus proposals emanating from the MOE. Because conflicts among Ministries were addressed within the government, there did not seem to be palpable public disputes involving environmental groups and business sectors on the issue of urban air pollution during the 1990s.

According to Kingdon, the role of a policy community is to produce a short list of possible policy options ready for policy makers to consider. That's the first consensus in the policy stream. Another consensus building occurs in the politics stream when politicians in Congress negotiate final policy instruments based on political considerations rather than on merits or theoretical grounds. In other words, political constraints govern the outcomes. In this consensus building, actors are often motivated by pressures such as lobbying influences or election impacts. Coalition building among actors is a very important element in consensus building in the politics stream.

In the case of urban air pollution in South Korea during the 1990s, few politicians appeared in either the policy or politics stream. Politicians not only lacked science-intensive environmental policy expertise, but also were not concerned with issues lacking local interest elements. Because urban air pollution was a national, not a local issue, it was

of greatest political concern at the Ministerial and National Assembly levels of government. High level governmental officials met with stakeholders hidden from the public view, making deals and trading off policy options from their own political perspectives. Power rather than merits were more important in such games.

Table 4-11. Features of South Korean policy and politics streams on urban air pollution during the 1990s

	Consensus in Policy stream	**Consensus in Politics stream**
Who	Specialists (Experts) in policy communities: Usually researchers in government research institutes, government agencies, or private companies, university professors (Few experts from civil society)	High level officers rather than politicians
Where	Policy Primeval Soup (Public hearings, mass media, policy speeches)	High level official meetings, usually hidden from the public
What	Evaluation of policy instruments, which existed already in other countries' experience. Recombination of old elements, narrowing alternatives, and consensus on a few options for decision agenda	Deal, trade-off
How	Not much argumentation and persuasion, Educating, and learning from, others Little dispute	Based on political situation rather than merits or arguments. Power game: applying pressure, lobbying influence, calculation of electoral impact, coalition building with higher-ups.

This analysis of the idiosyncratic features of multiple streams in South Korea during the 1990s regarding urban air pollution provides a context for understanding specific cases

of public dispute resolution for the management of urban air pollution. During the 1990s, the conventional multi-stream perspective is adequate as the multiple stakeholders including government officers, businesses, and environmental groups gathered to build consensus on complex urban air pollution policies in an ad-hoc fashion in the name of governance. The stakeholders tried to generate policy options, evaluate policy options, build consensus on policy options, and decide policy options all together. Even though they did not have constitutional authority to make a final decision, their activities encompassed the policy streams of conventional multi-streams. Another implication from the conventional multiple stream model is that there are external, and unexpected factors in the politics stream which actors in the policy process try to utilize. Thus, it is a very important task to understand how such entrepreneurial activities around the politics stream affects consensus-building efforts initiated by stakeholders during and following the conclusion of consensus building. Insights from this analysis should facilitate public dispute resolution in the urban air pollution regulatory area and beyond.

The next chapter further details the South Korean context for a case study of public dispute resolution on urban air quality, because context matters. Public dispute resolution in a certain country hinges on the context of its democratic development, as well as its political institutions. For this reason, the chapter will explore the power of civil society, political culture, decision-making processes, presidency, bureaucracy, legislature, and judiciary system in South Korea since its democratization in 1987.

As the new millennium began, the new concept of multiple streams, including the consensus building stream, is more applicable. Environmental groups became powerful actors. The policy and politics streams began to change in 2001 and 2002.

Chapter Five

Idiosyncratic features of Korea's political institutions

(1987 to 2002)

Context matters. A clear understanding of the rules that govern key political institutions, including the legislature, executive, bureaucracy, judiciary, and party systems, as well as a sense of the willingness of citizens to utilize these institutions during the policy-making process is necessary in order to better understand the context within which social actors formulate and carry out collective decision making,

In general, East Asian democracies have undergone political democratization without the simultaneous economic crises that have limited civil society's political options and the budgetary resources available to the states in Latin America or Eastern Europe (Linz and Stepan, 1996). Therefore, the region represents an important litmus test for the potential of newly established democracies. In contrast to Latin America, Korean civil society activism took place within the context of robust economic growth during the first decade of democracy (1987-97). As a result, the new democratic regime in Korea had significantly more resources than its Latin American counterparts to devote to non-economic policy concerns.

To better situate questions about urban air quality management in South Korea, I introduce the idiosyncratic features of Korean political institutions in which civil society actors have tried to access the policy process in this nascent democracy. An analysis of

political institutions in South Korea underpins a case study of public dispute resolution on diesel vehicles and the special act for Seoul Metropolitan air pollution in later chapters.

The Legislature

The roles of legislature in a democracy are to enhance the legitimacy of decision making through policy debate, to balance political power by monitoring the executive and bureaucracies, to serve as a key mechanism to channel and represent civilian interests, and to manage potentially destabilizing social disputes (O'Donnell and Schmitter, 1989; Diamond and Shin, 2000).

The Korean legislature has operated in a quite impressive fashion since democratization began in the late 1980s, especially compared to its role under the military regimes of the past (Shin, 1999). However, compared to advanced Western democracies, the Korean legislature remains immature as a policy-making institution. Key impediments include limited policy expertise, limited autonomy, disrespect for legislative procedures, under-resourced committees and an under-developed culture of political debate.

Limited professionalism and under-resourced committees

One professor of public policy in Korea who has participated in a civilian ministerial committee criticizes Korean legislators scornfully for their lack of policy expertise and boasts of his civilian watchdog role in evaluating policy proposals:

> "*Politicians in the National Assembly don't really have policy expertise. Some from academic backgrounds or NGOs do, but because party discipline is so strong, they are not really allowed their own voice and I think mainly they are not interested. Contrasted to this, the evaluations regularly undertaken by unpaid civilian ministerial committee members where we review all the details and critical issues before reaching a decision are better. If only our national assembly committees were like this we wouldn't have to worry about our politics. If elected politicians spent their afternoon talking about such issues rather than secret ideas such as who hates who, fighting over who is most loyal to the president, and things like that, then our democracy would be fine.* (Kwon Huck-Ju, Interview conducted in 2000 by Jones (2004))

Concurring in this view, the public does not trust Korean legislators and regards them as the least competitive sector in Korea. Many scholars of Korean politics indicate that there is strong party discipline. It is built around a regionally based and personality-focused party system, and hinders the development of ideologically-based party platforms as well as in-depth policy debate (Park, 2000).

Like a father in a traditional Korean family who, alone, makes all the important decisions, every party boss exclusively controls the nomination of his party's candidates for each and every electoral district of the National Assembly. Once the candidates are elected, the boss tells elected representatives how to vote on every major issue, and censures them when they defy the guidelines (Shin, 1999). Powerful party leaders control the nominations for political offices almost exclusively. Similarly, promotions tend to be awarded based on loyalty rather than merit.

In terms of monitoring functions, the Korean legislature has failed to live up to the 1987 constitutional reforms, which authorized annual reviews of executive performance and an inspection of all ministries (Korean Constitution, Chapter 3, Article 61). While the letter of the law has generally been respected, civic groups and political analysts have

suggested that these reviews tend to be symbolic and cursory. Only 20 days per annum are allocated to monitoring the bureaucracy and few Congress members approach the process professionally, focusing instead on civil service scandals, which attract greater media attention.

While the quality of the monitoring process has improved somewhat since 2000 due to an initiative[121] led by the People's Solidarity for Participation Democracy (PSPD), one of the most influential Korean civic groups, existing legislative rules and procedures often fail to ensure that societal issues and related policy demands are thoroughly debated. The committee system remains rudimentary and limited in scope, while the deliberations that do occur often degenerate into partisan skirmishes (Park, 2000). These problems are further exacerbated by the inadequate quantity and quality of staff resources, as well as a cultural tendency to avoid public disagreement.

Despite members' expanded freedom of speech, it is hard to say that floor debate serves its intended purposes. Legislative members rarely raise concise and genuine questions. Cabinet ministers do not seem to provide sincere answers to the questions raised. Exchanges thus remain tedious, unmoving, and no more than a blunt warning against executive mismanagement (Park, 2000).

Committee meetings are often plagued by absenteeism and socializing, while networking is given priority over policy expertise. As a result, legislative reviews tend to be

[121] NGOs assign themselves to congressional committees and rank congressional members' input to the civil service monitoring process. Results are released to the media, serving as an important monitoring and evaluation tool (Yoon Jung Sook, 2003 interview)

rushed and most modifications cosmetic, especially for bills introduced by the executive.

Limited autonomy

Although civilian control over the military was firmly established by the early 1990s, the Korean legislature has been less successful in securing independence vis-à-vis the executive. The president and close Blue House aides generally set the major legislative agenda and floor strategies, while legislative staff relies mainly on bills drafted by the bureaucracy, constituent parties, or civic groups. In the case of the budget, the legislature has rarely suggested substantive changes to executive proposals, reinforcing the legislature's role as a passive reviewing body (Park, 2000).

Disrespect for legislative procedure and immature political debate

A democratic legislature is charged with developing procedures that encourage effective debate as well as policy expertise. A plethora of formal rules and regulations concerning legislative proceedings, internal order, and discipline has ensured some degree of professionalism in the Korean case (Shin, 1999). However, political parties continue to rely on extra-legal and illegal obstructionist tactics to influence the legislative process. The ruling party has employed extra-legal blitzkrieg tactics to ram through legislation rather than compromise on controversial bills. In retaliation, opposition parties often focus on uncovering presidential impropriety, or scandals among rival party members, and are quick to resort to illegal disruptive measures such as sit-ins, hunger strikes, and boycotting plenary or committee meetings for extended periods of time (Shin, 1999).

Due to these limitations, the Korean legislature has had problems developing as a policy-making body. Since committees do not devote significant time and resources to scrutinizing legislative proposals, the content of legislation generated by the executive or bureaucracies is often enacted as proposed. Some legislation has been passed without adequate consideration of its broader societal implications or whether the existing infrastructure can effectively accommodate additional burdens. An officer in the Ministry of Environment explained in an interview in 2004 that in other countries they make a law and a corresponding administrative system together, but in Korea first they make the law and then subsequently they have to make the system or infrastructure (Mr. Ahn, SC, 2004 interview by Kim DY).

The strategy of "Let's make the law first, then amend it" has been utilized quite often by relatively weak proponents of legislation; otherwise they would never get through the tough resistance from strong counterparts. Even one NGO leader for gender issues points that there is some advantage to the lack of political debate and rapid passage of laws, saying "in Germany they spend years on one law and in some cases it will not get through but in Korea, the Sexual Harassment Act actually took just a few hours." (Kim Young Hee, MDP gender expert, 2000 interview in Jones (2004)). These idiosyncratic features have enabled South Korea to earn the dubious title of "the world's fastest law-making machine."

Bureaucracy

During the military regimes of the 1960s through the 1980s, the policy process in

Korea was not at all participatory. Usually only elite bureaucrats participated in making decisions which were politically endorsed afterward. Business people and professionals were consulted, but they had no direct influence on the articulation of policy. Their suggestions were often discounted because they were presumed to be in favor of business interests and the well-to-do, rather than trade unions and the alienated. It was a dominant concern in policy making that priority should be given to national economic development. Those governments were largely hands-off regarding issues of wealth distribution and social justice, as well as issues of the environment, gender inequality, or discrimination against the disabled (Kim S, 1998).

In addition, Korean civil servants in those days were widely considered to be one of the most conservative groups in society. Until public sector reforms in 1998, the civil service system was entirely closed. Whereas civil service personnel in other countries may accept positions in academia, non-profit, or the private sector before subsequently reentering the bureaucracy, entrance into the Korean civil service has historically been by examination only with little value attached to alternative experiences or career paths. Based on a long cultural tradition of a merit-based bureaucracy that honors civil servants as part of the social elite, Korean bureaucrats continue to be regarded with high, albeit diminishing, respect. The bureaucracy is still hierarchical, rule-bound, and resistant to outside influence. Competition in civil service entrance exams is fierce, with just a two percent annual passage rate (Evans, 1995). Though the number of bureaucrats has multiplied over the past three decades (from 9.5 to 18 per 1000 inhabitants), their relative numbers remain low in comparison with western democracies (Woo-Cumings, 1995).

Not surprisingly, the policy-making process has been largely elite-controlled. Through the 1980s, Korean bureaucratic elites played a substantial role in formulating national development strategies (Park 2000; Evans 1995). As the bureaucracy has enjoyed considerable autonomy vis-à-vis the legislature, not only did the majority of parliamentary statues originate within the bureaucracy, but also the legislature's oversight role has been historically weak, leaving the bureaucracy largely unaccountable (Woo-Cumings 1995; Park, 2000). Historically, Korea's bureaucratic culture has been also characterized by strict adherence to senior colleagues' instructions, leaving little room for policy innovation.

While some authoritarian regimes collapse because they are unable to meet their country's economic development needs (e.g., Argentina), the Korean military government fell apart because its economic model generated too much success. As citizens shifted their focus from the immediate demands of securing the necessities of survival to more quality-of-life issues, the Chun regime (1981-1986) lost its legitimacy –not only with those at the forefront of the democracy movement, students and workers, but also with the middle class (Kim S, 2000). In other words, a "crisis of success" propelled Korea's democratic transition.

Because this is a special kind of transition, there has been limited pressure for a major overhaul of the bureaucracy (Hahm and Plein, 1997). Indeed, historical stability and continuity have minimized the level of violence and instability generated by the transition. At the same time, the absence of a radical break with the past and status quo politics have meant that promised democratic reforms have been difficult to implement (Hahm and Plein, 1997; Woo-Cummings, 1995). Accordingly, while the dominance of the presidential-bureaucratic nexus has declined in importance due to the growing independence of the

legislature, judiciary, and civil society, the bureaucracy continues to exercise significant influence over policy formation and implementation. Because the limited professionalism of the legislature frequently results in the passage of overly broad laws, the important task of interpretation is left to bureaucratic officials responsible for drawing up all-important implementation ordinances. That is, it is ultimately bureaucrats who concretize new legal and policy principles and decide whether or not to adopt an activist or conservative reading.

As Cho Young Sook, a NGO representative points out:

> *"Sometimes the law is good but the implementation guidelines are bad—sometimes the meaning of the law vanishes. So although we first focus on the national assembly, we have to immediately turn and monitor whether the governmental officials follow the meaning of the law fully or do they just ignore its real significance. In that case, we have to monitor and push and negotiate...[this process] can last 3 months, 6 months...but we know that the shihaengryoung [enforcement ordinance] is sometimes more important than the law itself* (2000 interview by Jones (2004))."

While this is the prevailing view, a closer look at post-transitional political dynamics suggests that bureaucratic access points may be considerably more dynamic. Not only are new personnel being recruited into the civil service (including former anti-authoritarian activists), but partly in response to civil society demands, new channels of civic involvement are developing, ranging from participation on ministerial advisory committees to the establishment of new mechanisms within the state to represent specific societal interests, like women's groups.

The DJ administration (1998-2002) undertook several reform initiatives in 1998. In order to encourage academics and non-profit sector workers to join the civil service, an

expert recruitment system was introduced in which a limited number of positions were designated for contract-based appointments. This allowed an unprecedented, but admittedly still small, number of activists to enter the civil service, push for reforms from within the state, and build coalitions with activist NGOs to address social policies.

Because of the important role that bureaucracies in nascent democracies play in formulating legislation, concretizing general legislative principles into detailed implementation ordinances and overseeing the policy implementation process, it seems imperative that civil society groups invest as much in engaging critically with civil service officials as in seeking legislative reform or aiming to influencing the content of party platforms.

With the rising pressure generated by civil organizations during the 1990s as well as increasing networking between the bureaucracy and NGOs, the role of civil society in dealing with such social concerns as environment and gender issue has risen (Kwon, 2000), as compared to NGO displacement of bureaucratic control over economic policy. (Hahm and Plein 1997).

The Presidency

Post-independence authoritarian leaders in South Korea promoted the image of the president as the father of the nation whose wisdom in leading the country towards prosperity demanded filial loyalty from the citizenry. This powerful legacy of personalizing political authority continues to have a strong residual effect, facilitating considerable

executive sway over bureaucratic and legislative agendas. Bureaucrats, ruling party legislators, and party officials are generally anxious to demonstrate acceptance of new policy directions when the president expresses an interest in a specific policy area, whether it be globalization in the case of YS (1992-1997) or human rights in the case of DJ (1997-2002) (Kim Samuel, 2000).

The end of economic growth as the primary source of presidential legitimization and the diversification of post-transitional citizen demands have required presidents to take a more active role in setting social and welfare policies (Kwon, 1999). Accordingly, there has been a fragile but nevertheless important trend in Korea towards increasing executive-civil society cooperation. The Korean presidency has become an increasingly important ally of progressive civil society groups with each successive presidency. The election of Kim, DJ in December 1997 represented a watershed for state-civil society relations. Voted in with only a 40 percent plurality and lacking the support of the powerful business community, the Kim, DJ administration placed a heavy emphasis on its partnership with civil society. Former activists were recruited to key positions within the ruling party, the bureaucracy, and the presidential advisory circle (Shin Heisoo, 2000 Interview by Jones (2004)). This level of state-civil society interaction has been enhanced in the current Noh, MH administration.

Thus, while it probably would be misguided to assume that presidential support translates neatly into expanded political opportunities for civil society, if a president champions a particular social-reform issue, civil society is likely to play an important role in securing its place on the political agenda as well as the intensity with which it is

promoted. In other words, given that presidential office holders still enjoy substantial control over the policy agenda and deliberation processes, if the interests of civic groups coincide with the personal commitments of the president, executive support may tilt the balance of power in favor of reform proponents.

Political parties

Under the military regimes, the threat from North Korea thwarted the development of a diverse party spectrum: Embryonic left-wing parties were crushed, restricting domestic politics to a rightist, pro-American stance. During the Park regime (1961-1979), opposition parties were state-sponsored and represented in a largely powerless Congress. Because parties competed in elections with predetermined outcomes, party organizations lacked experience mobilizing popular support and were without a grassroots base.

During the democratization process, political parties have made the least progress among Korean political institutions. The party system remains far from the institutionalized model discussed in the democratization literature. The conditions for effective institutionalization of a party system include low electoral volatility,[122] minimal party fragmentation (the number of parties), and limited ideological polarization (Mainwaring and Scully, 1995; Payne et al., 2002). In the Korean case, no parties have survived between electoral periods. The party system has been extremely unstable. Although frequent party

[122] Electoral volatility is measured by the net change in seat (and vote) shares of all parties from one election to the next.

name changes conceal a considerable degree of continuity associated with the major party leaders, the cycle of creating and disbanding political parties remains.

Although Korea has only had a mean number of 2.95 parties during democratization, it scores poorly in terms of disproportionality (i.e., the ratio of congressional seats to vote share) (Croissant, 2002). There has not been a single legislative majority in any of the four recent national assembly elections, resulting in the so-called yeoso-yadae (ruling minority, opposition majority) phenomenon. In terms of ideological polarization, in order to appeal to voters in the Seoul-metropolitan area (45 percent of the national total), where regional ties are weaker, parties adopt catch-all centrist platforms. Party platform and legislative positions are calculated efforts to curry favor with broad voter groups and are generally devoid of ideological commitments. (Lee MiKyoung, 2003 interview by Jones (2004)).

Party bureaus make only limited efforts to retain contact with civic groups outside of electoral cycles. While officials may respond to particular citizen and NGO demands, they do not have a strong community presence. This assessment is backed up by low rates of party membership (approximately 12 percent in 1996) and the associated inability of parties to be self-financing. As a result, party leaders have relied heavily on business elites for illegal donations, especially as elections usually deplete some 50 percent of total party resources.

In addition, the acceptance of parties and elections as legitimate mechanisms for governing is an important dimension of party institutionalization. However, the Korean political party system has fallen short of the institutionalized ideal associated with effective democratic governance. Parties tend to be elite-dominated and have lost public legitimacy

due to repeated scandals involving slush funds and bribery. Only 27 percent of Koreans agree that parties serve the interests of the public, while 71 percent characterize Korean political party performance as either "non-democratic" or "mostly democratic" (Shin, 2000). This condition of the Korean party system explains citizens' low levels of party identification.

Judiciary

The Korean judiciary has undergone significant reforms during democratization. Change is occurring in the way the populace perceives and interacts with legal procedures and the courts. Legal scholar Youm (1994) argues that judicial review is emerging as one of the most important institutions in democratic Korea.

In response to demands for greater judicial independence and more effective protection of civil and political rights, the Constitutional Court was established in 1989 and revived the practice of judicial review suspended during authoritarian rule. By soliciting the help of progressive lawyers,[123] civil society groups can draft reform bills and represent themselves as plaintiffs in court cases. At the policy implementation phase, the judiciary and bureaucracy constitute the main arenas of influence. In contrast to many other fledgling democracies, the Korean judiciary has afforded a significant new point of entry for organized citizens.

[123] In May 1988, a collective of former political dissidents and civil rights lawyers called "Lawyers Group for the Achievement of Democratic Society" (MinByun) emerged. Boasting a membership of over 300 attorneys, this group has been actively involved in promoting "full democratization" by assisting civil movement organizations.

Chapter Six

Portents of dispute on urban air pollution in policy stream

As stated in Chapter four, many factors in the problem and politics streams portended tension between the MOE and other economic Ministries. The levels of NOx and PM10 in Seoul in the early 2000s were still high and increasing, even though the MOE had implemented several policy measures during the 1990s. Second, environmental groups had become more involved in urban air pollution, with the 2002 World Cup Soccer Games coming to South Korea. Third, based on the evaluation of previous long-term planning, the MOE was preparing new policy proposals for the second 10-year term environmental plan and the third 5-year term plan, to be announced at the end of 2002.

Two changes in the policy stream exacerbated the public dispute as tension in the problem stream and politics stream erupted during 2000. The first change was initiated by automakers and the second change by the MOE.

Change in policy stream from the side of auto industries

Auto industry as powerful actor

At the beginning of the new millennium, the automotive industry in South Korea was a powerful actor in the policy stream. This industry, which includes automobile and auxiliary parts production, had become a core driver of South Korea's economic growth

despite its short history,[124] Globally, it rose to the level of having the world's fifth largest manufacturing capacity in 1996 (KAMA, 1996). Even with the financial crisis of 1997-1998 in South Korea, the auto industry was ranked first in the nation in terms of export sales, employment, and tax revenue pool[125] (Hyundai Motor Company, 2004). The auto industry also sustains indirect employment in associated industries, such as insurance, tire, iron, chemicals, glass, oil, and after-service. Including these numbers, the auto industry contributes to eight percent of national employment (Hyundai Motor Company, 2004).

These numbers show why the South Korean auto industry has exerted enormous influence in formulating South Korean economic policies. For the government, the auto industry appears to be the force that will enable South Korea to reach its goal of US $20,000 GDP.[126]

Change the symbolic image of diesel vehicles!

On September 19, 2001, Hyundai Motor Company (hereafter, Hyundai), as a leader[127] among other South Korean industries, held a public symposium on the "high technology of passenger car diesel engine" with Bosch Corporation. There, Mr. Lee, the vice president of Hyundai Motor Company maintained that diesel passenger car engine technology was so advanced that diesel passenger cars were no more environmentally harmful—in fact, they

[124] The first South Korean automobile, the "Pony" was made by Hyundai in 1976.
[125] It was responsible for 11.1% of national manufacturing capacity, 7.9% of national employment, 12.0% of national export sales and 18.2% of national tax revenue pool in 2004. According to the Korea Automotive Research Institute, the automotive industry directly employed 210,000 people, exceeding 170,000 employees in the second largest industry, semi-conductors, by far.
[126] Weekly Korea (2005.12. 28). 'Top ten news for auto industry in South Korea 2005.'
[127] In 2004, Hyundai Motor Company accounted for 53% of the total number of automobiles exported and contributed to 7% of the national export (Hyundai Motor Company, 2004).

emitted 30-60 percent less CO_2--than gasoline vehicles.[128] Hyundai was trying to change people's preconceived image of diesel vehicles as symbols of dirty air and major culprits in air pollution into an image of environmentally friendly transportation.

Why diesel passenger cars now?

Originally, diesel engines were the economical choice for large vehicles such as long-haul trucks, buses, heavy industrial equipment, or SUVs. Diesel engines remained rare in passenger cars, because diesel engines were regarded as noisy, slow, and graceless. Most of all, diesel vehicles were notorious for black exhaust fumes, including an especially high level of particulate matter. South Korean auto industries had once manufactured a few models of diesel passenger cars, but failed to create much market demand for them during the late 1980s[129]. They could not change the image of the dirty and noisy diesel vehicle with their experiments.

Why, then, did Hyundai want to manufacture diesel passenger cars in South Korea again in 2001? To answer this question, it is necessary to examine global market conditions for automobiles during the late 1990s. From a managerial point of view, industries have to be sensitive to changes in external environments to survive. Rapidly developing South Korean auto industries observed in 1996 that export of their automobiles had begun to exceed domestic sales. Furthermore, in the course of overcoming the financial crisis, which

[128] Korean Economy (Hankyung) (2001.9.19)
[129] In 1980, Daewoo motor company manufactured passenger cars, called "Royal Records" with diesel engines. They sold only 12,000 vehicles for eight years, and terminated manufacturing the model. Afterwards, Kia motor company ventured to manufacture a model of diesel passenger car ("Concord"), but it went the same way as the Daewoo product.

stormed Asian countries in 1997 and 1998, the auto industry had to look for new foreign markets to offset decreases in profit in domestic markets.

External conditions, however, were not promising for expanding sales. First, foreign markets were expected to become more competitive. There was worldwide oversupply of automobiles. In 1999, auto industries in the world supplied 77 million vehicles, of which only 55 million were sold, leaving 22 million unsold (KAMA, 1999)[130]. Second, the exponential growth of the Chinese auto industry[131] threatened all the other auto industries. Third, North America-centered marketing strategies proved risky as economies in the region slowed.

Faced with these conditions, South Korean auto industries turned toward the European Union (EU) market, the second largest in the world, and sensed a distinct trend in the EU auto market: the rapid increase of diesel passenger cars (Table 6-1).[132] The number of diesel passenger cars, which accounted for only 14 percent of total vehicles sold in the EU market in 1990, increased to 22.6 percent in 1995, 32 percent in 1997, and reached 40.9 percent in 2002.[133] Then, why did environmentally sensitive and progressive European people want to buy more and more diesel passenger cars?

---

[130] KAMA (1999). Prospect for 2000 auto industry

[131] Auto Industry Research Vol 140. (2006.1.5).The Chinese auto industry manufactured 0.2 million automobiles in 1980, and increased the number from one million in 1992 to 2 million in 2000.

[132] In Japan, diesel passenger cars only share 1.5% of the total passenger vehicles. In the US, diesel passenger cars account for only 0.2%.

[133] JoongAng Ilbo. Economist #621 (2002.1.22).

Table 6-1. Share of diesel passenger vehicles ('99-'00) in European countries

Austria	Belgium	Spain	France	Italy	Germany	Netherlands
62%	54 %	49%	48%	33%	29%	24%

Clean diesel engine?

One answer lay in the technological development of clean diesel technology[134] for passenger cars. The new diesel engines had some environmental advantages over other types of engines. Of the five major emissions from internal combustion engines (CO, HC, CO_2, PM, and NOx), diesel emits only small amounts of the first three. Most importantly, diesel passenger cars emit 20-50 percent less CO_2 than gasoline cars. However, the new diesel engines still emit much more NOx and PM than gasoline vehicles (Table 6-2).

Table 6-2. Comparison of emissions from diesel and gasoline passenger cars (unit: g/km)

Model[135]	Fuel	Displacement (liter)	CO	HC	NOx	PM	CO_2	Fuel efficiency
Avante XD	***Diesel***	***2.0***	***0.129***	***0.016***	***0.326***	***0.033***	***170.0***	***15.5***
	Gasoline	2.0	0.24	0.03	0.04	--	223.0	10.5
Lavita	***Diesel***	***1.5***	***0.16***	***0.011***	***0.417***	***0.036***	***163.4***	***16.4***
	Gasoline	1.5	0.92	0.03	0.07	--	213.7	10.9

Source: MOE's presentation on May 17, 2002 at public forum.

In Europe, the solution to the problem of high particulate matter emitted from diesel engines was to provide clean diesel fuel with a low sulphur content of 50 ppm. Lower sulfur fuel can reduce particulate emissions without the addition of any exhaust control

[134] Advanced new technologies, such as electronic controls, common rail fuel injection, variable injection timing, improved combustion chamber configuration, and turbocharging have made diesel engines cleaner, quieter, and more powerful than past diesel vehicles.

[135] To compare the emission from diesel and gasoline passenger cars, Hyundai's two models are used.

device, as well as improve the performance of engine systems.[136]

Another reason for the popularity of diesel passenger cars in the EU is economic. Today's diesel engines provide 20 to 40 percent better fuel economy[137] and offer more torque at lower rpm than their gasoline counterparts. Also, soaring but unstable gasoline prices stimulated consumers to buy passenger cars working on diesel fuel, which was relatively cheaper than gasoline.[138] Using diesel also means reducing dependence on foreign oil. Thus, global leaders in the auto industry believed the future of the auto industry lay in the reduction of the engine displacement in gasoline vehicles, and the improvement of diesel engines in order to survive stringent environmental regulations, at least until there is the development of new alternative energy in the future.[139]

Diesel engine is the future!

Observing the potential of diesel passenger cars in the future auto market,[140] Hyundai and Kia quickly responded by venturing into the development of its own diesel passenger cars in 1999.[141] Apart from the market potential of diesel passenger cars in Europe, their

---

[136] Diesel Technology Forum, 2005: Meet Clean Diesel, www.dieselforum.org/meet-clean-diesel/what-is-clean-diesel/).

[137] Diesel is a petroleum-based fuel with higher energy content than gasoline. This greater energy content, coupled with the efficiency of compression ignition, explains why diesel vehicles get better gas mileage.

[138] Fuel price is influencing factor when consumers buy a new car. Although England belongs to the European market, diesel passenger cars are not that famous, accounting for only 14% of the total passenger cars, compared to other European countries. That's because diesel price is not competitively lower than gasoline price. In the case of US, the relative price ratio between gasoline and diesel is 100:111. Expensive diesel price partly explains why there is low share (0.2%) of diesel passenger cars in the US.

[139] Joongang Ilbo. Economist #664 (2002.12.3).

[140] It was expected that diesel passenger vehicles would share more than 50% of the total passenger cars in the world.

[141] Hyundai ventured jointly with US Detroit Diesel Corporation in developing diesel engines for passenger cars and contracted with German Bosch Corporation for Common Rail system which can reduce emissions remarkably from diesel engines.

rationales for the development of diesel passenger cars also came from a concern for the CO_2 regulations in Europe. Their rationales were explicitly expressed in the interim policy report of the Korea Institute of Machinery and Materials (KIMM) sponsored by Korean Automobile Manufactures Association (KAMA) in December 1999:

> *'Regulation of CO_2 in Europe is literally the eye of the hurricane for the auto industry. According to the convention, automobiles should satisfy the CO_2 standard of 140 g/km from 2008. South Korea will be a member of the convention from 2009. However, given that the current level of engine technology in South Korea emits over 180 g/km, South Korea should focus on the development of appropriate technology. To satisfy the CO_2 convention, an ultra high fuel efficiency vehicle is necessary and at this moment, diesel passenger cars are the best solution...therefore, for this reason, diesel passenger cars should be encouraged in South Korea' (KIMM, 1999)*[142]

Hyundai[143] (Kia)[144]'s strategies

To accomplish its new business mission, Hyundai pursued four strategies. First, it decided to quickly finish developing diesel engines clean enough to satisfy the European emission standards for diesel passenger cars, so-called "EURO-3" starting in 2000. Second, Hyundai needed a market for diesel passenger cars in South Korea. This strategy could enlarge production capacity sufficiently to effect economies of scale, improve technologies, and maintain its competitiveness in the EU auto market. Third, to do that, Hyundai needed to change consumers' images of diesel passenger vehicles and engines by advertising the

[142] KIMM (Korea Institute of Machinery and Materials), as a government-funded research institute, is the main research institute to be consulted on automobile emission standards by the MOE, as well as KAMA.
[143] In 2004, Hyundai Motor Company accounted for 53% of the total number of automobiles exported and contributed to 7% of the national export (Hyundai Motor Company, 2004).
[144] Major South Korean auto industries are Hyundai, Kia, Renault-Samsung, Ssangyong, and Daewoo. In the wake of financial crisis during 1997-1998, Hyundai Motor Company bought out Kia Motors Corporation in 1999. Samsung motor company was merged with Renault and Daewoo motor with GM.

benefits of new diesel technology. Lastly, Hyundai hoped to protect its domestic market during the development period for new diesel passenger cars from foreign diesel passenger cars equipped with relatively superior technologies.

These strategies are well described in KIMM's policy report in 1999:

> *'Diesel passenger cars hold a key for future auto market. Therefore, it is absolutely necessary that active domestic market for diesel passenger cars should be created...However, creating domestic market for diesel passenger cars will be never easy because diesel vehicles (mostly large and heavy vehicles) are branded as major contributor to urban air pollution. At this point, it is necessary to create conditions for domestic market by easing public's distrust against diesel passenger cars. In addition to that, the auto industry needs certain amount of preparation time because it is now in the course of development of technology. Thus, for the next emission standards for newly manufactured diesel passenger cars in South Korea, it is recommended that the government set the standards as the level of EURO-4 or above to block diesel passenger cars (including foreign cars) from penetrating into domestic market. Then, within two years, when the auto industry can manufacture new diesel passenger cars with appropriate technology, the new rational emission standards, (probably, the level of EURO-3), can be discussed again. It is agreed that the Ministry of Environment (MOE), the auto industry, and other experts agreed to participate in the next review.'*

As Hyundai had hoped, things progressed favorably. The company developed diesel engines equipped with advanced technology such as the Common Rail system, which reduced many emissions compared to conventional diesel vehicles. On November 25, 2000, Hyundai declared that its new diesel passenger cars capable of satisfying EURO-3 standards were ready to be sold.[145] Finally, Hyundai and Kia began exporting their four new models of diesel passenger car to the European market in February 2001 and had sold a total of 53,533 by 2002.

[145] Hankook Ilbo (2000.11.25). 'New era coming for diesel passenger cars'

Officers of the industry were very busy promoting the vision of diesel passenger cars as cleaner than most people expected. To change people's perceptions, Hyundai used the media and public symposiums. For example, the company held a symposium with a multinational industry, BOSCH, to advertise the potential of new diesel engine technology on September 19, 2001. Also, Hyundai showed off to the media a new model of diesel passenger car, "Avante X," equipped with a new common rail diesel engine, hoping to prove that the new diesel passenger car was not only less noisy but also more comfortable, as well as much cleaner.[146]

Most importantly, based upon the recommendation of KIMM's report, the Ministry of Environment (MOE) announced the advance notice in April 2000 of an amendment to the Clean Air Conservation Act which would increase emission standards for newly manufactured diesel passenger cars. The amendment's comment period was to close in July 2002. As Hyundai wished, the MOE upgraded emission standards for newly manufactured diesel passenger cars to a level foreign vehicles could not satisfy.

Too strict emission standards

Looking at the newly established emission standards for newly manufactured diesel passenger cars in 2000, which went into effect in July 2002 (Table 6-3), one might be astonished by the numbers: The South Korean emission standards were 25 times stricter in NOx, and five times in PM_{10} than the Euro-3 standards. In other words, no existing diesel passenger cars in the world could satisfy the South Korean standards thus making it

[146] Hankook Ilbo (2000.11.25). 'New era coming for diesel passenger cars'

impossible for foreign diesel passenger cars to be sold in South Korea. South Korea became the most environmentally strict country at least for diesel passenger cars at that time.

Table 6-3. Comparison of emission standard for diesel private vehicles (Unit: g/km)

Nations			**CO**	**HC**	**NOx**	**PM**
South Korea (Jan, 2000)			1.2	0.25	0.62	0.05
South Korea (April, 2000)[1)]			***0.5***	***0.01***	***0.02***	***0.01***
Europe (2000, EURO-3)			0.64	0.56 (NOx + HC)	0.50	0.05
US	Federal (1999, LEV [2)])		2.13	0.05	0.13	0.05
	California (1999, LEV-2)	LEV	2.13	0.05	0.03	0.006
		ULEV [3)]	1.06	0.025	0.03	0.006
Japan (2002)			0.63	0.12	0.30	0.056

Source: MOE's presentation on May 17, 2002 at public forum.
[1)]: In April 2000, MOE announced a advance notice of the amendment on emission standard for new diesel passenger vehicles, which would be effective since July 2002.
[2)]: LEV (Low Emission Vehicle)
[3)]: ULEV (Ultra Low Emission Vehicle)

The sudden tightening of the emission standards for new diesel passenger cars was initiated in April 2000, when the Ministry of Environment (MOE) announced the advance notice for the amendment of the Clean Air Conservation Act (Table 6-4). The amendment was to make existing emission standards for NOx 47 times stricter.

Table 6-4. The evolution of emission standards for diesel passenger cars in South Korea (Unit: g/km)

Application year	**CO**	**HC**	**NOx**	**PM**
1993.1.1	2.11	0.25	0.62	0.12
1996.1.1	2.11	0.25	0.62	0.08
1998.1.1	1.5	0.25	0.62	0.08
2000.1.1	1.2	0.25	0.62	0.05
2002.7.1	***0.5***	***0.01***	***0.02***	***0.01***

Source: MOE's presentation on May 17, 2002 at public forum.

The only remaining task to improve the domestic market for diesel passenger cars was to rationalize or once again lower emission standards to the level of EURO-3 as automakers and the MOE agreed in 1999 when KIMM prepared the report. They agreed in 1999 that within two years they would discuss the next emission standards for new diesel passenger cars again, as the auto industry developed appropriate technology. Hyundai and Kia believed that as soon as they showed their ability to manufacture competitive diesel passenger cars for the European market, the MOE would rationalize the emission standards anyway so that they could actually sell their new diesel passenger cars in South Korea. However, after two years had passed there was no signal from the MOE about discussing a new emission standard.

Rationalize standards, please!

It would be a big problem for Hyundai (Kia) if they could not sell their diesel passenger cars on the South Korean market due to the very emission standards that they themselves had requested from the MOE. In 2001, Hyundai began to signal publicly to the government that there was a problem. In public symposiums, they argued that the government should loosen the emission standards for diesel passenger cars so that Hyundai might sell diesel passenger cars in the domestic market. However, the task of rationalizing emission standards proved not that easy, as KIMM warned in its report in 1999. The tension between the MOE and Hyundai (Kia) on emission standards continued until 2002.

Unexpected problem for Hyundai (Kia)

While Hyundai and Kia proceeded well with the new plan for diesel passenger cars in 2000, something else was going on in the MOE. The MOE's 2000 amendment of the Clean Air Conservation Act included other two important regulatory changes: 1) change of definition of vehicle categories (Table 6-5), and 2) change of the definition of multiple-purpose vehicles (Table 6-6). Vehicle categories and the regulatory definition of vehicles are very important, since those factors decide which emission standards should apply to a certain vehicle. According to the vehicle categories and the definitions, some vehicles may be subject to stricter emission standards than others.

Table 6-5. Change of definition of vehicle categories for passenger car type-1[147]

Before the advance notice of amendment	**On the public notice (2000.4.24)**	**Final amendment (2000.10.30)**
Passenger car type-1 means a motor vehicle with…		
• Displacement of more than 800 cc • Weight of less than ***2.5*** tons. • In addition, ***wagons, vans, designed to carry less than 8 passengers, and multi-purpose passenger cars***	• Displacement of more than 800 cc • Weight of less than ***3.5*** tons • In addition, ***vans with the width of less than 1,800 mm and the height of at less than 1,700 mm, designed to carry less than 8 passengers***	• Displacement of more than 800 cc • Weight of less than 3.5 tons • In addition, ***vans with the width of less than 2,000 mm and the height of at less than 1,800 mm, designed to carry less than 8 passengers***

[147] The Amendment of Clean Air Conservation Act. Article 7 (1).

Table 6-6. Amendment on the definition of multiple purpose vehicles (01.1.2)[148]

Before amendment (before 2001.1.2)	**After amendment (after 2001.1.2)**
Multi-purpose passenger car (including jeep) means a motor vehicle…	
Equipped with four-wheel drive for off-road operation.	Equipped with appropriate **frame structure** for off-road operation. It should have a four-wheel drive, or LSD (Limited Ship Differential)

In a nutshell, the MOE's objective in these amendments was to prevent the number of diesel recreational vehicles (RV) from increasing by 1) changing the definition of multi-purpose vehicles, which would go into effect on January 1, 2001, 2) changing the definition of passenger cars into two new categories: passenger car type-1, which excluded multi-purpose vehicles, and passenger car type-2, which included multi-purpose vehicles instead, and 3) formulating emission standards for newly manufactured diesel vehicles according to the new vehicle categories, which would go into effect on July 1, 2002. The most demanding emission standards for diesel passenger cars were supposed to apply to passenger car type-1 (Table 6-7).

Table 6-7. Change of definition of vehicle categories and multi-purpose passenger car

Until 2000.12.31		**Amendment**			
		2001.1.2-2002.6.30		**After 2002.7.1**	
Type	**Classification**	**Type**	**Classification**	**Type**	**Classification**
Passenger car	• Displacement of more than 800 cc • Weight of less than 2.5 tons. In addition,	Passenger car	• Displacement of more than 800 cc • Weight of less than 2.5 tons.	Passenger car type-1	• Displacement of more than 800 cc • Weight of less than 3.5 tons In addition, ***vans***

[148] The Amendment of Clean Air Conservation Act. Article 7 (5).

	wagons, vans, designed to carry less than 8 passengers, and multi-purpose passenger cars, equipped with four-wheel drive for off-road operation.	Multi-purpose passenger car	With appropriate ***frame structure*** for off-road operation. It should have a four-wheel drive, or LSD (Limited Ship Differential)		***with the width of less than 2,000 mm and the height of at less than 1,800 mm, designed to carry less than 8 passengers***
				Passenger car type-2	Multi-purpose passenger car With appropriate ***frame structure*** for off-road operation. It should have a four-wheel drive, or LSD (Limited Ship Differential) with displacement of more than 800 cc with weight of less than 3.5 tons

When Hyundai and Kia reviewed the MOE's proposal in the period of public notice in April 2000, there seemed to be no problem at all in terms of the change of definition of vehicle categories and multi-purpose vehicles. Thus, they did not raise any complaint during the comment period. However, when the proposal was submitted to the office of legislation for its review on September 7, 2000 and when the proposal was finalized as the new regulation on October 30, 2000, they found that the definition of passenger car type-1 had been changed from that of original version in the MOE's proposal that they reviewed during the notice and comment period. The specifications of passenger car type-1 were extended from 1,800 mm wide and 1,700 tall vans to 2,000 mm wide and 1,800 mm tall vans (Table 6-5). What was worse, the definition of multi-purpose vehicles had been

changed to include motor vehicles with frame structures for off-road operation (Table 6-6).

Diesel passenger car or multi-purpose vehicle?

For Hyundai and Kia, those sudden changes meant that they could not manufacture several models of diesel RVs beginning July 1, 2002. Considering the specifications of the new models of RVs at that time (Table 6-8), two models from Hyundai and one model from Kia belonged to the new category of passenger car type-1, to which the new, but unreasonably tough, diesel passenger car emission standards would apply starting on July 1, 2002. The width, height, and weight of those recreational vehicles were below the maximum levels of passenger car type-1. Furthermore, those recreational vehicles did not have the frame structure that met the definition of multi-purpose vehicles.

Table 6-8. Specifications of diesel Recreational Vehicles (RVs) in South Korea

Model	Length (mm)		Weight (Kg)	Certificate application	Issue of certificate
	Width	Height			
Carens II (Kia)	*1,750*	*1,610*	*2,015*	*2001.4.10*	*2001.11.19*
SantaFe (Hyundai)	*1,845*	*1,730*	*2,295*	*2000.2.29*	*2000.10.26*
Trazet (Hyundai)	*1,840*	*1,710*	*2,330*	*2000.2.20*	*2000.10.26*
Grand Voyager (Chrysler)	1,997	1,749	2,555	2001.11.19	2002.4.23
Free Lander (Land Rover)	1,800	1,700	1,895	2000.11.10	2001.4.24

The termination of those diesel RVs represented an enormous blow to Hyundai and Kia. They had invested at least two years of time and energy in developing these models.

The cost of marketing and advertising could not be ignored.[149] With relatively very cheap diesel fuel, SanteFe and Trazet had been big hits among consumers.[150] It was estimated that the loss due to the termination of SanteFe, Trazet, and Carens could amount to USD 1.2 billion.[151]

This was an issue not only for auto manufacturers, but also for automobile parts industries. KAMA and parts companies argued that the termination of these diesel RVs would cause almost 250 autoparts firms to lose more than USD 0.3 billion investment plus USD 0.15 billion from monthly sales.[152]Another potential problem was the possibility of a class-action suit by a group of consumers, who had already signed contracts to buy those diesel RVs frjom Hyundai or Kia, but would be unable to get them due to the regulation after July 1, 2002. Especially, in the case of Kia's Carens, Kia had applied to the MOE for the manufacturing certification already on April 10, 2001, meaning that Kia already knew the sales of Carens would be in jeopardy due to the new regulation,[153] but did not announce this problem to consumers.

However, for Hyundai and Kia, it seemed very unfair that the MOE abruptly changed the definition of vehicle categories right after the comment period without consulting with the auto industries. There seemed to be two solutions to these problems. First, it might be possible to rationalize emissions standards for diesel passenger cars as soon as possible so

[149] Kyunghyang Sinmoon (2002.3.23. p.8).
[150] Hankook Kyungjae Sinmoon (2002.5.17. p.13).
[151] Financial News (2002.5.21. p4).
[152] Moonhwa Ilbo (2002.5.18)
[153] The applications for the certificate of manufacturing SantaFe and Trazet were made before the amendment was finalized on Oct 30, 2000. In the case of Carens, the certificate was issued by the MOE on November 19, 2001, but was supposed to be effective only by July 30, 2002.

that their diesel RVs could be manufactured continuously, even if the vehicles were categorized as passenger cars. Second, it might be possible to change the definition or classification of vehicles so that those diesel RVs could be classified as multi-purpose vehicles, which would fall under the lower emissions standards.

Based upon the agreement between the MOE and auto industries, when KAMA prepared the policy report in 1999,[154] the MOE should have started a discussion with Hyundai (Kia) aimed to rationalize the emission standards for diesel passenger cars. However, there were no signals from the MOE. Although Hyundai and Kia kept complaining to the MOE through private meetings with enforcement officials after the MOE announced the final amendment on October 30, 2000, the MOE only warned KAMA and import motor associations on March 23, 2002 that models of diesel passenger cars unable to meet the new emission standards should not be manufactured after July 1, 2002.

In the meantime, Hyundai planned to invest USD 1.5 billion to establish manufacturing lines to produce at many as 1.5 million diesel passenger cars by 2003,[155] believing that the MOE would have to rationalize the emission standards soon. However, the MOE's stiff position on the emission standards meant that Hyundai's huge investment in its diesel engine manufacturing facility might not be made.

What about other automakers?

These challenges to Hyundai and Kia were opportunities for their competitors such as

[154] A Study on the Establishment of Vehicle Emissions Standards after 2000 (2000.3). The MOE and auto industries agreed that they would revisit the emission standards when auto industries could manufacture clean diesel engines, which could satisfy the Euro-3 standards.
[155] Maeil Kyungje Sinmoon (2002.4.11. p.13).

Daewoo and Ssangyong. Daewoo, with no diesel vehicle models, sent the MOE an official letter encouraging the Ministry to stick to the original emission standards for diesel passenger cars, citing the serious air pollution attributable to high levels of particulate matters from diesel vehicles.[156] Ssangyong motor company was in the same page with Daewoo, in promoting this competitive windfall against Hyundai and Kia. Even though Ssangyong manufactured diesel RVs, such as Rexton and Musso, those vehicles had a frame structure corresponding to passenger car type-2 categories, having a lower emission standard. KAMA's position became very awkward, because it could not represent the interests of all member companies in an effective way.

Change in Policy stream and challenges for Hyundai and Kia

So far, this chapter has shown how changes in the policy stream occurred around the advent of the new millennium and how those changes brought turmoil to the stakeholders in the issue of urban air pollution. Automakers developed clean diesel engines and wanted to sell those cars by changing the image of conventional diesel vehicles into more environmentally friendly ones. However, given the seriousness of urban air pollution, this was a difficult task.

Facing these problems, Hyundai and Kia, as key players in South Korean auto industries, as well as in the national economy, worked hard to postpone the implementation

[156] Joongang Ilbo (2002.5.3)

of the regulation establishing new requirements for diesel RVs until 2004 so that they could sell more diesel RVs, and to rationalize the new emission standards for diesel passenger cars so that they could sell diesel passenger cars domestically. The conventional ways Hyundai and Kia could influence policy was to continue pleading their case through the media, public forums, and private meetings with the MOE officials, and to extensively lobby higher ups in the government[157] (Box 6-1, Table 6-9, and Figure 6-1.)

[157] Naewoi Kyungje Sinmoon (2002.5.10. P.19)

Box 6-1. **Summary of problems for Hyundai and Kia**

Problems

For Hyundai and Kia, diesel passenger cars were a strategic choice for future auto markets. They needed to create the demand in the domestic market as a foundation to bolster exports to European market. But, due to the strict emission standards for diesel passenger cars, and the MOE's strategic regulatory move to block diesel RVs from the auto market, their plan was in jeopardy. They had to do something by July 1, 2002 when the new amendment of Clean Air Conservation Act would go into effect.

Issues, positions, and interests

- The emission standards for new diesel passenger cars
  - Rationalize the standards into the level similar to Euro-3, which would go into effect in 2004 for new cars, and in 2005 for operating cars (KIMM, 2000) so that they could sell diesel passenger cars in South Korea
- Regulating diesel RVs
  - Change the vehicle categories or postpone the implementation of proposed change of the vehicle categories of diesel RVs until 2004 so that they could sell more diesel RVs

Strategies

- Advertise the benefits of diesel passenger cars with new technology
- Keep contacting with the MOE's officials to raise the issues
- Lobby strongly and extensively to the higher-ups in the government

Table 6-9. Part of conflict Assessment matrix with the auto industry (Hyundai and Kia)

Issue / Stakeholder	Regulating diesel RVs	Emission standards for new diesel passenger cars (Marketing of diesel passenger cars)	...
KAMA	★	★	
Hyundai + Kia	★ ★	★★ 2004 Euro-3 2005 Euro-4	
Daewoo	--	-- not until 2006	
Ssangyong	--	-- not until 2006	
Samsung	•	• 2005 Euro-4	
...			

Note: :: he most important interest
+: Pro
+/: Conditional Pro
•: Neutral
-/: Conditional Con
--: Con

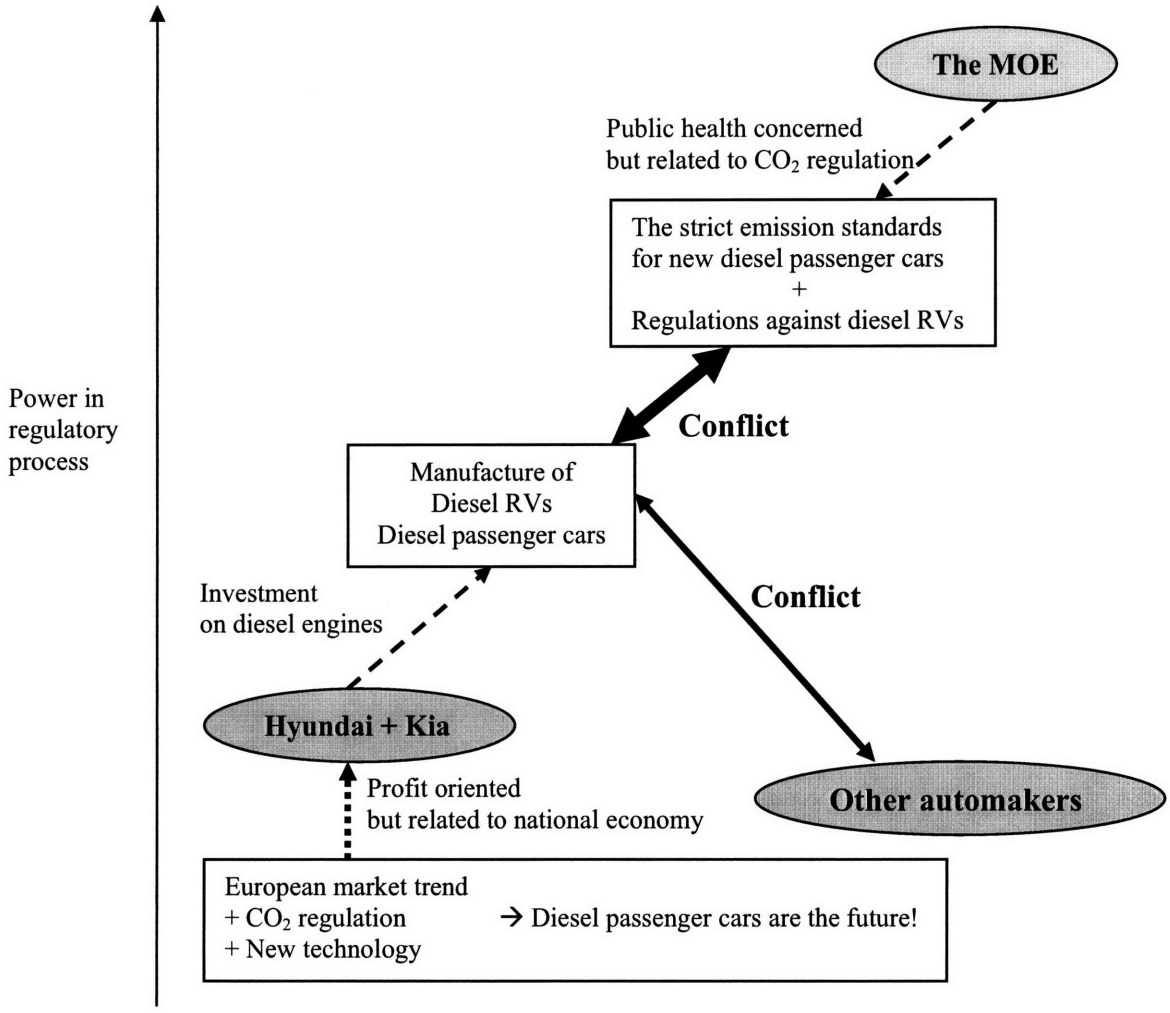


Figure 6-1. Stakeholders' power in regulatory process and their issue conflict[158]

[158] The automakers are regulatory target of the MOE. The MOE sometimes consults with the auto industry but always tries to command and control the industry. Other automakers, such as Daewoo, Samsung, and Ssangyong, are much less powerful than Hyundai and Kia in terms of their share and influence in the auto industry. Hyundai and Kia occupied 70% of the auto market share in South Korea.

Change in policy stream from the side of the MOE

This section introduces another change in the policy stream, this time from the perspective of the MOE. The Ministry proposed a comprehensive 10-year-long term air quality management plan for the Seoul metropolitan area in 2002. The program was designed with a framework totally different from all previous policy tools. The MOE wanted to make its program not just another symbolic proposal but an implementable Special Act. The new Act included some policy measures which worried some stakeholders in industries and businesses.

To understand the content of the Special Act, it is important to recognize the MOE as a growing power within the South Korean government, and to describe what it hoped to achieve in addressing the problem of diesel vehicles in the early 2000s. Understanding how these factors are established will illuminate the significance of the Special Act as part of the policy stream.

<u>As a growing power</u>

During the 1960s, the authoritarian political regime under President Park stimulated modernization of South Korea through consecutive economic development plans starting in 1962. At that time, political leaders saw in the smoke from industrial stacks a symbol of the nation's economic development. Even though the Pollution Prevention Act was enacted in 1963, there was no agency to properly enforce the law to effectively alleviate the

environmental problems caused by economic development[159] (Koo, 1979). In 1967, the first pollution control section was created in the Ministry of Public Health and Social Affairs. This section was upgraded to the Pollution Control Division in 1970.

Rapid economic growth since the 1970s had given rise to significant environmental problems in South Korea. In response, the Environmental Preservation Act was enacted in 1977. Through this Act, the South Korean government, for the first time, set water quality standards in 1978 and sulfur dioxide (SO_2) standards for air quality in 1979. Subsequently, in 1980, the government established the Environment Administration (EA) as a sub-cabinet agency in the Ministry of Public Health and Social Affairs. With the agency, the government also began to regularly monitor environmental quality and publish an Environmental White Paper starting in 1982.

Soon after democratization began following the demise of the military regime in 1987, environmental concerns began to receive more attention from the public. Finally, in 1990, the Environmental Administration (EA) was upgraded to a cabinet level ministry.[160] The National Assembly passed the Basic Environmental Policy Act, which replaced the Environmental Preservation Act of 1977, and several other environment-related acts for air quality prevention, and so forth (Harashima and Morita, 2001).

---

[159] Since 1967, air pollution in the Ulsan industrial district, the first planned industrial area established by the Korean government has increased, leading to health problems and harm to farm products. Nonetheless, the government did not launch anti-pollution measures in earnest. At that time, the Korean government usually took measures on a case-by-case basis. Koo, Y (1979), Legal Aspects of Environmental Protection in Korea, Korean Journal of Comparative Law 7: 1-59.

[160] In 1990, ministry of environment was directed by the Prime minister's office.

In December 1994, the Ministry was given greater authority and increased functions and manpower as part of a major restructuring of the government.[161] For the 10 years between 1993 and 2002, the Ministry budget increased by almost eight times (Table 6-10). However, even with this rapid growth, the MOE remained weak compared to ministries such as MOCIE and MOCT in terms of budget and influence[162] (Table 6-11).

Table 6-10. Budget increase for the Ministry of Environment (MOE) in South Korea[163]

Year	1993	1995	1997	1999	2002
Budget (US million $)	192	686	1101	1176	1461

Table 6-11. Comparison of Ministries in budget and manpower in South Korea 2002

Ministry	MOE	MOCIE	MOCT
Budget (US million $)	1461	2744	15539
Manpower (people)	1349	1029	771

MOE: Ministry of Environment
MOCIE: Ministry of Commerce, Industry, and Energy
MOCT: Ministry of Construction and Transportation

The history of the MOE proceeded along with the democratization of South Korea. The first "Civil government" (1993-1998) seemed to put more value on environmental protection; the Ministry of Environment was upgraded to direct report to the President in 1994. However, despite enhancing its budget and manpower, the administration did not

[161] Since 1994, the ministry became the current MOE directed by the President.
[162] A research on the power of ministry in South Korea assumed that if a ministry produced more elite personel associated with the ministry to other agencies, the ministry might be more powerful. In that assumption, the MOCT was the most powerful ministry, and the ministry of finance was the third, and the MOCIE was the six. The MOE was not in the list. The MOCT had ample budget associated with large infrastructure projects such as roads, and port construction. (Joongang Ilbo, 2005.9.26).
[163] The budget of the MOE accounted for 0.42% of the national GDP. Other advanced countries have about 1% of their GDP for environmental policymakings. (Kim, Sin-Jong, department head of air bureau, 2005).

seem to give the MOE more opportunities for leadership. The first five Ministers of the MOE from 1994 to 1999 were politicians, whose experience lay in economics or finance department in the past administration, rather than in environmental management. It was believed that the elected president was rewarding them for their support for his political election.

During the "people's government" (1998-2003), three female non-politicians Ministers were appointed. It was believed that they were chosen to demonstrate the administration's commitment to improving womens' right, rather than to the environment. For example, Ms. Sohn, a famous actress, was appointed as the Minister of Environment in May 1999 because she had helped the President Kim, Dae-Jung and was the co-president of the largest environmental NGO in South Korea. She retained her post as Minister for only one month before being forced to resign in a political scandal. After that, in June 1999, a person who seemed to have expertise in environmental issues was appointed as the Minister of the MOE for the first time. Ms. Kim, Myung-Ja was a professor of Chemistry in a university in South Korea.

Another environmental NGO inside the government

Even if the budget of the MOE was smaller than those of other agencies, and its leaders were not environmental management professionals, the MOE became increasingly powerful following the late 1990s. One source of power was the increasingly influential

activities of environmental NGOs, which often blocked the government-initiated projects[164].

Accordingly, the MOE became seen as a troublemaker by Ministries such as the MOCT and MOCIE mandated to implement development projects and boost economic development. The MOE often tried to delay the implementation of construction projects in order to do additional environmental impact assessment. The MOE seemed to be on the same page with environmental NGOs all the time.

The MOE's interest in regulating diesel RVs

The problem of diesel vehicles had always been a priority issue for the air bureau at the MOE since the early 1990s, because diesel vehicles were major mobile sources for particulate matter (PM_{10}), which was the most serious threat to public health among air pollutants. PM_{10} levels and NOx levels were not reduced at all, but rather increased from the late 1990s on.

The MOE designed the CNG bus project and DPF project as major instruments to cope with the problem. However, these were not implemented as fast and effectively as the MOE intended. The cause as well as the solution to the diesel vehicle problem did not, in fact, fall under the MOE's jurisdiction. Relatively cheap diesel fuel was a major driving force in the popularity of diesel vehicles, and the MOE could not control this factor.

People who went through the financial crisis during 1997 and 1998 became very sensitive to changes of fuel prices. Given the high price of gasoline relative to diesel and

[164] Environmental groups were actively involved in the movement against Saemankeum reclamation project in mid 1990s. They came to participate in a private-public joint fact-finding committee for the Saemankeum project in 1999. In 2000, environmental coalition was successful in blocking government-initiated Dong River dam construction in 2000.

LPG, vehicles burning those fuels became much more popular. Consumers increasingly traded their gasoline vehicles in for diesel or LPG vehicles. In any case, the MOE could not control fuel prices for an environmental rationale alone.

Wanting to curb the increase of diesel RVs on the road, the MOE turned to the only means in its jurisdiction: emission standards. For this reason, the MOE changed the definition of multiple purpose vehicles, and changed the classification of vehicle types in amending the Clean Air Conservation Act in 2000. With these changes, newly manufactured diesel RVs would be classified as diesel passenger cars, to which very tough emissions standards would apply starting July 1, 2002.

The MOE's interest and position on diesel passenger cars

The MOE agreed with the automakers in 1999 that it would strengthen emission standards for diesel passenger cars to protect South Korean automakers from foreign auto industries for two years of technology development, and then rationalize the emission standards on the condition that South Korean automakers, in particular, Hyundai and Kia, had developed appropriate clean diesel technology.

The promised two years came to an end in 1991. Hyundai and Kia had developed their diesel engine technology and even started to export them to the European market. If the MOE revisited and rationalized the emission standards to the level of EURO-3 in 2001 or 2002, Hyundai and Kia could sell their diesel passenger cars right away in South Korea.

In the meantime, in practice, the MOE was giving positive consideration on diesel passenger cars for several reasons. It would be wrong to conclude that the MOE did not

want diesel passenger cars at all, even if it seemed that way from the amendment. First, diesel passenger cars with new technology are different from conventional heavy duty trucks, buses, and RVs. New diesel passenger cars are equipped with cutting-edge technology, such as a common-rail system, which reduces many emissions and increases fuel efficiency compared to conventional diesel engines. Diesel passenger cars could emit less CO_2 and HC than gasoline vehicles. Reduced CO_2 emissions were the most attractive feature of diesel passenger cars.[165]

Consider the words of Mr. Koh, Yoon-Hwa[166], the former director of the Air Quality Management Bureau (hereafter, the air quality bureau):

> *"When I was studying in England for a doctoral degree in 1996, I happened to observe that European countries were strategically promoting small diesel passenger cars. At that time, France targeted that diesel passenger cars would share 50% of the total of passenger cars; Germany targeted 30%, England 20%...and I thought why such environmentally sensitive people were pursuing diesel passenger cars...*
>
> *The answer was the advent of surprising technology in diesel engines. The technological development for clean diesel engine was unexpected... Automobiles have complex implications: They are running weapons to kill people, they are major contributors to air pollution, and they are symbols and tools for economic development...*
>
> *While I worked at the air quality bureau since 1998, the staff considered the future of automobiles. We researched policies for 2010 or 2015, rather than policies for two or three years from then. There were many options to follow in terms of air pollution. For example, electric vehicles, fuel cells, ethanol,*

[165] In 1999, KAMA and EU made an agreement that South Korea automakers should reduce CO2 emissions from automobile up to the level of 140 g/km by 2009 in order to export their vehicles to the European market. In terms of CO2 reduction from mobile source, diesel passenger cars are by far better choice than gasoline vehicles.

[166] Interview with Mr. Koh, Yoon-Hwa, April 15, 2005. Mr. Koh, majored in mechanical engineering, became the head of the Air Quality Policy Department at the Air Quality Management Bureau in May 1998. He had been dispatched to the Office of the President from March 2000 to March 2002. Then, he stepped up as the director of the Air Quality Management Bureau starting March 20, 2002 and became involved in the public dispute on urban air quality management right in no time.

Natural gas, LPG, biodiesel, solar energy, et cetera. We consulted many experts on this issue, and read many books on future automobiles...Fuel cells have too long a way to go. Natural gas is not fit for small passenger cars. LPG has a limited amount of production. In practice, until 2015, gasoline vehicles and diesel vehicles are major types of automobiles. Then, all things considered, the final decision had to be diesel passenger cars on the ground that the technology could be continuously improved. We concluded that diesel vehicles would emit less than gasoline vehicles in terms of all air pollutants including NOx and PM_{10} by around the year 2010. To make these things happen, we had to allow automakers to sell their cars in the domestic market to expedite technological development."

Judging by these remarks, it is certain that the MOE strategically and strongly endorsed diesel passenger cars in terms of air pollution. So why didn't the MOE rationalize the emission standards as Hyundai and Kia wished in 2001? There were three reasons for the MOE to hesitate to lower the emission standards for diesel passenger cars as fast as it could.

First, given the much lower prices for diesel fuel, the availability of new passenger vehicles might lead to a sudden and destabilizing sudden shift of consumer choice. Since 1998, when South Korea managed to escape an economic crisis, the number of diesel RVs increased rapidly, because diesel price was much cheaper than gasoline and automakers utilized such situations to sell more diesel RVs. People who had bought diesel RVs for their leisure activities started to use them as commuting vehicles for economic reason. The new diesel passenger cars, developed by Hyundai, emitted more NOx and PM10 than gasoline vehicles.

What was worse, the number of diesel RVs had been increased at a higher rate since 2000 than since 1997. While the number of LPG vehicles was smaller than that of diesel vehicles, the increase in the sales rate of LPG vehicles was higher than that of diesel

vehicles during the late 1990s. That's because the price of LPG was lower than the price of diesel (Table 6-12). However, when the government announced the energy policy in 2000, including an adjustment in the ratio of energy fuel prices from 100:49:29 (Gasoline: Diesel: LPG) in 2000 to 100:75:60 in 2006[167] (Refer to Table 4-8 in Chapter Four: Proposal to adjust the relative ratio of three transportation fuels (2000)), consumers, who planned to buy LPG vehicles, decided to buy diesel RVs instead.[168]

Table 6-12. Relative ratio of transportation fuel prices between 1997 and 2000

Year	Gasoline	Diesel	LPG
1997	100	45	39
1998	100	49	32
1999	100	44	24
2000	100	49	29

The share of RVs was increasing among the total private vehicles up to 42.2 percent in 2002, and diesel RVs dominated among the RVs (Table 6-13, Figure 6-2).

[167] When the Ministry of Finance and the Ministry of Commerce, Industry, and Energy announced to increase diesel and LPG price up to 75% and 60% of gasoline price by 2006, that decision was not based on environmental concerns. Rather, the decision was more about economic decision. Since 1997, the number of LPG vehicles increased rapidly due to relatively cheap LPG. Accordingly, the import of LPG fuel increased so that the national finance was hurt. The focus of the adjustment of the energy fuels in 2000 was on LPG fuel price. The purpose was to increase LPG price rather than diesel fuel price.

[168] Chosun Ilbo (2000.8.6). '[Car Life] "Go way LPG vehicles!" New wind for diesel vehicles.' After the announcement of the government to increase LPG fuel price, the sale of diesel SUV 'Sportage' by Kia increased by 22.2% compared to the sale of the previous month.
Chosun Ilbo (2001.1.7). 'Diesel vehicles being sold well.' Hyundai's diesel SUV 'SantaFe' was sold in the amount of 1606 in November 2000. But, in December 2000, 3424 SantaFes were sold. During one month, the sale increased by 113%. On the other hand, the sales of LPG santaFe decreased from 2828 in November 2000 to 1597 in December 2000 by 43.5%.

Table 6-13. Share of Diesel RV among private vehicles

Ratio (%)\Year	1994	1999	2000	2001	2002
RVs among total private vehicles	7.5	29.5	41	38.3	42.2
Diesel vehicles among total RVs	-	60.6	*40.1*	*69.3*	*74.4*

Source: MOE's presentation in May 2002 at public forum

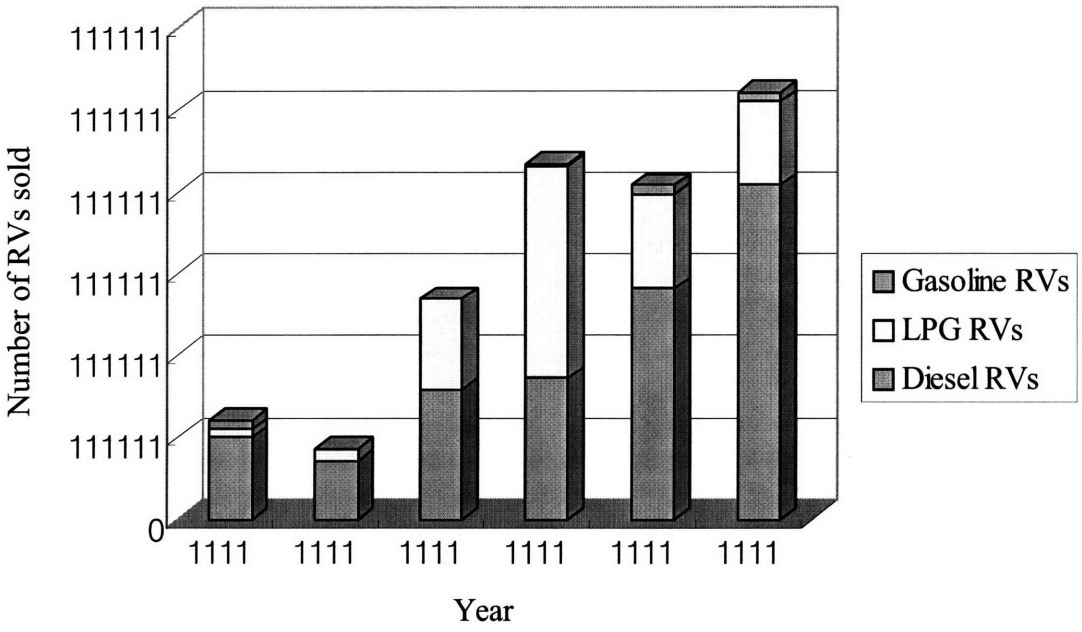


Figure 6-2. Increasing sales of RVs since 1998

To stop the rapid increase in diesel RVs sales that began in 2000, the MOE needed to maintain the high emission standards for diesel passenger cars and extend them to apply to diesel RVs starting July 1, 2002. Second, diesel fuel still had a higher sulfur content (500 ppm) than did the European diesel fuels (10 ppm) in 2001. Third, the MOE had to face the united and formidable opposition of the environmental groups, if it were to allow diesel

private vehicles. The MOE had spent much energy in castigating diesel vehicles as a major cause of urban air pollution. A sudden endorsement of diesel passenger cars might confuse the public and environmental groups to whom clean diesel vehicles sounded like an oxymoron. Furthermore, the most powerful three environmental groups had built a coalition, "Blue Sky 21," in 2001 to promote awareness of urban air pollution focused on the 2002 World Cup Soccer Games in South Korea. Environmental groups became very sensitive to urban air pollution at that time.

Thus, even though the MOE strategically endorsed diesel passenger cars within the Ministry, it could not proceed without certain conditions. Those conditions were that 1) the difference between gasoline and diesel prices should be narrowed, 2) there should be social consensus supporting diesel passenger cars on the streets, and 3) there should be other ways to mitigate NOx and PM_{10} from other diesel vehicles to offset additional NOx and PM_{10} emissions from new diesel passenger cars.

The words of Mr. Koh corroborates this view:[169]

> *"The problematic situation was too-cheap diesel. The diesel fuel price can be determined by the energy tax policy, which is the jurisdiction of the Ministry of Finance. When I asked the Ministry of Finance about diesel passenger cars, they had a strong interest in allowing diesel passenger cars in the domestic market for the sake of economic development. Thus, the MOE had a card to use at that time. We wanted to use diesel passenger cars as leverage in order to make the Ministry of Finance adjust energy tax and automobile tax. That was a very important opportunity for us to get what we wanted...*
>
> *In the meantime, the MOE prepared to propose the Special Act for Seoul metropolitan air quality management. But, adjusting the energy tax for a more reasonable diesel fuel price was a much more important issue for us than the Special Act. Even if we failed to enact the Special Act, the energy tax issue was*

[169] Interview with Mr. Koh, Yoon-Hwa, April 15, 2005.

110% important for us."

The MOE could not reveal its real interest in diesel passenger cars, but its public position was clear. Below is the interview of Mr. Koh with a news media[170] on September 2001:

> *"Allowing diesel passenger cars in South Korea does not seem to be easy (not impossible). As prerequisites for that, we need to have social consensus on this issue. The difference between gasoline and diesel fuel prices should be much narrower. And, there should be policy measures to reduce PM_{10} and NOx in urban areas."*

The MOE's new focus on the Seoul metropolitan area

The issue of new diesel passenger cars was imposed on the MOE from the outside. This was an opportunity, as well as a challenge, in that the MOE could negotiate other policy measures with diesel passenger cars. However, the MOE needed a breakthrough in dealing with the continuing issue of urban air quality. Also, the MOE knew that it should prepare new policy proposals for the second 10-year term comprehensive environmental plan, as well as the third 5-year term plan, which would start in 2003. Former staff officers described their preparation of the long-term plans for urban air quality management:[171]

> *"When Mr. Koh, Yoon-Hwa started to head the air quality policy department at the air quality management bureau of the MOE in May 1998, he first tried to upgrade scientific backgrounds for advanced air quality management by conducting research projects on the improvement of emissions inventory, and atmospheric modeling. Then, he initiated a research seminar on emission trading systems within his department in 1999. In an effort to make a*

[170] Hankook Kyungje (2001.9.19).
[171] Interview with the former staff at the department, and current the head of the air quality policy department in May 2004.

comprehensive air quality management plan for the next long-term planning, the officers at the air bureau researched all kinds of air quality management policies from all around the world and benchmarked other countries' experiences, especially those of the US and Japan. By the time July 2001, the program was still not comprehensive and did not have the new framework like we have now. We started to consult experts in 2002, and kept having brainstorming sessions with them in an effort to sort out possible policy options according to criteria of economic and technical feasibility. We knew that we could not do something meaningful at this time, because the DJ administration was about to be history at the end of 2002. We had to strike hard for the new administration in early 2003, when the administration kicks off with a strong aspiration to achieve their first plans..."

The air bureau began to hint at its new special long-term plan, the so-called, "Clean Air 21," in March 2002 to prepare the way for a strong campaign the following year for a comprehensive plan for the Seoul metropolitan area. Then, in July 25, 2002, in the middle of the complex dispute around diesel passenger cars, the MOE announced its intent to enact the Special Act for Seoul metropolitan area air quality management (hereafter, the Special Act) in a public forum for urban air quality management.

The Special Act was special in five aspects. First, it was based on regional air quality planning, comparable to the South Coast Air Quality Management District in California. The Act focuses on the Seoul metropolitan areas (Figure 6-3). The Seoul metropolitan area, only 12 percent of the total national area, was home to 46 percent of the national population and 42 percent of the total number of vehicles in the nation. The increasing rate of population growth and automobile ownership in the Seoul metropolitan area clearly called for special measures (Table 6-14.)

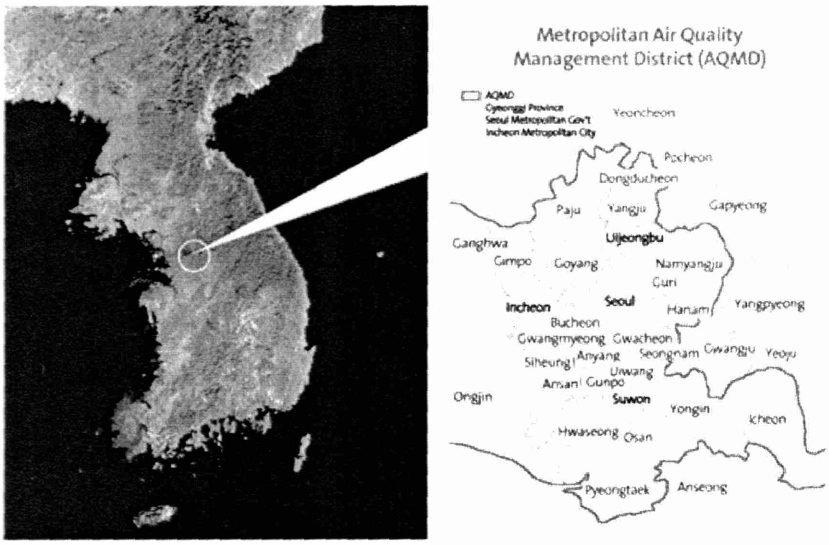


Figure 6-3. Seoul Metropolitan Air Quality Management District (AQMD) (Source: MOE website).

Table 6-14. The Growth Rate of Population and Vehicles in Seoul metropolitan area

Year	1990	2000	Growth Rate
Population	18,340,000	21,910,000	20%
Number of vehicles	1,790,000	5,577,000	211%

Source: Ministry of Environment 2005

Tables 6-15 and 6-16 show some of the indicators demonstrating how poor the air quality was in the Seoul metropolitan area compared to other regions of the country.

Table 6-15. The number of violations of NOx and PM_{10} standards

Pollutant	**NOx (24 hour: 0.08 ppm)**			**PM_{10} (24 hour: 150 μg/m^3)**		
Year / **Area**	**1999**	**2000**	**2001**	**1999**	**2000**	**2001**

Seoul metropolitan area	82	75	204	320	385	1128
Other areas	13	3	9	125	218	500

Table 6-16. Comparison of air pollution between Seoul metropolitan area and other areas in 2001

Pollutant / Area	NOx (ppb)	O_3		PM ($\mu g/m^3$)
		Number of violation days	Ozone Contingency days	
Seoul Metropolitan area	31	394	24	67
Other areas	22	390	5	53

In addition, the air quality of Seoul compared poorly to that in five other major cities in the world in terms of PM_{10} and NOx concentrations. The levels of these two pollutants (71 $\mu g/m^3$, and 37 ppb) were among the worst of those five cities (Table 6-17).

Table 6-17. Air quality in major cities in the world

Pollutant	Seoul ('02)	London ('01)	Paris ('01)	Tokyo ('01)	New York ('02)	Mexico City ('01)
PM ($\mu g/m^3$)	*76*[172]	20	20	37	28	53
NO_2 (ppb)	*37*[173]	25	22	28	30	28

Source: MOE's press release in March 2002 referring to OECD report in 2001.

Second, the Special Act had a framework for air quality management different from the previous act. In the past, the MOE had set emission standards for each polluting source, such as factories, incinerators, and automobiles. This way of regulating proved ineffective

[172] The ambient air quality criterion for PM is 70 $\mu g/m^3$. Seoul recorded 65 $\mu g/m^3$ in 2000, and 71$\mu g/m^3$ in 2001. The concentration increased over time. Considering that many monitoring stations are located away from roads, the real level of PM concentration is likely to be higher than reported one.

[173] The ambient air quality criterion for NO_2 is 50 ppb.

because the number of polluting sources increased too fast. The previous emission standards system was successful in monitoring the pollution level by each emitter but failed to define the total amount of pollution, which was affected by the increasing number of emitters. The Special Act introduced a total air pollution load management system, and an emission trading system, comparable to the US Cap and Trade system.

Third, the Special Act stipulated that fleet owners be required to purchase a certain number of low emission vehicles. Fourth, the Special Act was to invest 5.2 USD billion by 2012. Considering that the budget for the air bureau was USD 64.7 million in 2002, the new budget driven by the Special Act was enormous. Its enactment would mean to the MOE that the air bureau would experience a remarkable increase in policy resources, including budget and manpower.

Finally, the MOE strategically intended to make these new comprehensive ideas for air quality management into laws, not just into a program. Programs can be changed, intercepted, and watered down as political situations change. Law, however, can be more stable in the presence of external changes. The strategy of the air bureau was to construct a large framework and to create more detailed regulations later.

Waiting for another battle with other Ministries

The air bureau knew that it would not be easy to enact the Special Act. It would have to withstand the countervailing interests of other powerful Ministries, such as the MOCIE (Ministry of Commerce, Industry, and Energy), the MOCT (Ministry of Construction and Transportation, and the MOF (Ministry of Finance). Even after the Act had passed these

bureaucratic hurdles, it would have to be reviewed in the National Assembly. Politicians could reject or alter it up until the very end of the process.

As expected, the MOE got very negative signals from the MOCIE, the MOCT, and the MOF, when it circulated the proposed Special Act to them in August 31, 2002. The other ministries agreed that the Special Act was not necessary. The MOF said it would cost too much to implement. The MOCT commented that the Special Act should not include any implications for land use or transportation policy. The MOCIE argued that the Special Act would place too great a burden on businesses and industries in the Seoul metropolitan area.

To overcome these objections, the MOE needed to enlist the power of environmental groups. Mr. Koh described building a coalition with them:[174]

> *"We (the air bureau) knew that we could not do it alone (to pass the Special Act). We needed the help of environmental groups...*
>
> *While I was working in other bureaus, such as waste management, I happened to contact with NGO peoples. When I was in the Office of President in 2000, I also had opportunity to have relations with NGO personnels. In short, I came to build personal trust with some NGO people...*
>
> *In terms of the Special Act, I explained to them why the Special Act was important and often asked for their support for the Act..."*

Box 6-2, Table 6-18, and Figure 6-4 provide a summary of the MOE's problems, a conflict-assessment matrix, and a more complex diagram of conflict between multiple stakeholders. These describe graphically where the MOE stood in relation to many issues and became engaged in disputes around urban air quality management.

[174] Interview with Mr. Koh, Yoon-Hwa, April 15, 2005.

Box 6-2. **Summary of problems for the MOE**

Problems

For the MOE, diesel passenger cars were strategic choice for future auto markets, as automakers considered. In the meantime, the MOE did not want to allow diesel RVs to increase their numbers on the street. However, the MOE should persuade the public, especially environmental groups in order to lower the emission standards for newly manufactured diesel passenger cars. They could not allow diesel passenger cars unless some preconditions were met. Meeting those conditions could not be done by the MOE itself.

At almost same time, the MOE should muddle through the oppositions from other Ministries against its move toward the enactment of the Special Act.

Issues, positions, and interests

- The emission standards for new diesel passenger cars
  - Rationalize the standards into the level similar to Euro-3, which would go into effect in 2005, but there should be new diesel passenger cars satisfying Euro-4 by 2005.
  - Achieve preconditions with a leverage of diesel passenger cars: The most important condition was that diesel price should be up to more than 85% of gasoline price as soon as possible.
- Regulating diesel RVs
  - There were a lot of pressure from many sides to allow Hyundai and Kia to sell diesel RVs. But, the MOE could do that only if there should be other measures to offset the increased amounts of PM_{10} and NOx from additional diesel RVs.
- Enacting the Special Act
  - Enact the Special Act in the first year of the new administration.

Strategies

- Persuade environmental groups in a dialogue setting.
- Negotiate with other Ministries for the adjustment of fuel prices.
- Build a coalition with environmental groups for the Special Act

Table 6-18. Part of conflict Assessment matrix with auto industries and Ministries

Issue / Stakeholder	Manufacturing Diesel RVs	Emission standards for new diesel passenger cars	Adjustment of fuel price (Gasoline: Diesel: LPG)	Legislation of the Special Act	...
KAMA	★	★	•	+/	
Hyundai (KIA)	★	★ 2004 Euro-3 2005 Euro-4	100:75:60	•	
Daewoo Motors	--	-- until 2006	100:75:60	•	
Ssangyong	--	-- until 2006	100:75:60	•	
Samsung Motors	•	• 2005 Euro-4	100:75:60	•	
MOCIE	★	★ 2004 Euro-3 2005 Euro-4	100:75:60	--	
MOCT	•	•	•	--	
MOF	•	•	100:75:60	-/	
MOE	-/+	+/ 2005 Euro-3 and Euro-4	★ 100:85-95:47-55	★ by 2003	
...					

Note: ★: Very important interest
+: Pro
+/: Conditional Pro
•: Neutral
-/: Conditional Con
--: Con

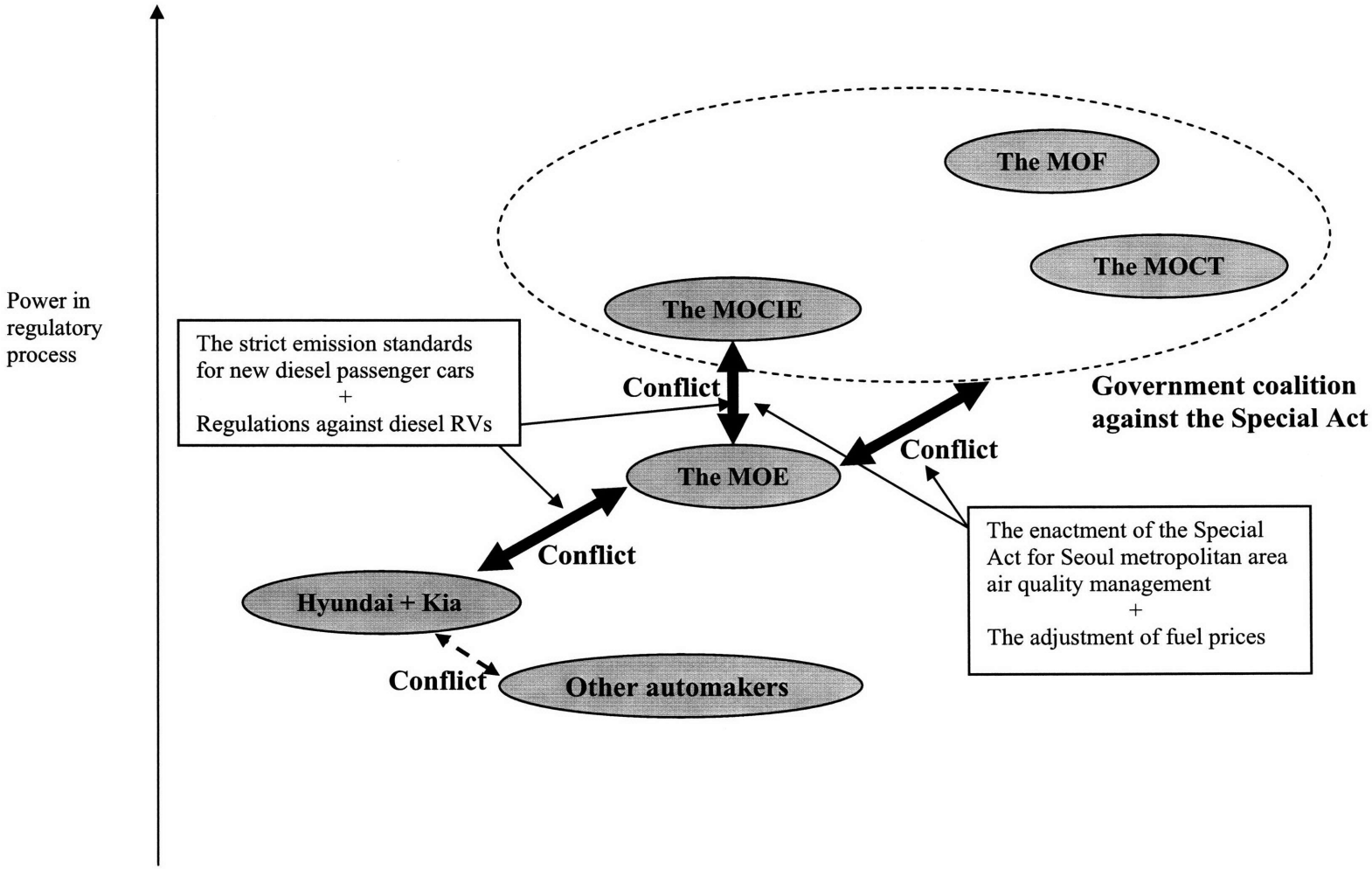


Figure 6-4. Multi-Stakeholders' power in regulatory process and their issue conflict.

Chapter Seven

The Joint Commission (Round #1)

Previous chapters described how two changes in the policy streams during 1999 and 2001 led major stakeholders, such as automakers, the MOE, and other Ministries onto a collision course. This chapter delves into how the new mode of participatory dispute resolution, a consensus-building stream, emerged among the major stakeholders, including environmental groups. The process of the consensus-building stream will be analyzed in terms of the initiation factors, as well as the process factors of consensus-building theory, which were described in Chapter 2. Then, it will be possible to show how conventional multi-streams affected those factors in consensus building, and how those factors affected the negotiation process among participants, resulting in emergence of the consensus-building process. Finally, this chapter traces the final results of the efforts of the Joint Commission.

The first section introduces environmental NGOs as another important group of players in this case study.

The advent of environmental groups on urban air quality

South Korea presents a fascinating case of a state that has had a relatively successful experience with democratic consolidation and the development of a relatively vibrant civil

society in a remarkably short period of time. Over a decade, Korea's non-governmental organizations (NGOs) have grown remarkably in size and sophistication and have become a force that policy makers must reckon with in formulating policy (Schreurs, 2002)[175]. About 80 percent of the NGOs in South Korea have been established since the 1980s. Almost 90 percent of environmental NGOs came into being during the 1990s (Table 7-1).

Table 7-1. Establishment of NGOs over time in South Korea

Period / Subject	Number (cases)	Pre 1940s (%)	1950s (%)	1960s (%)	1970s (%)	1980s (%)	1990s (%)	Total (%)
Civil society	908	4.9	1.7	5.4	7.6	18.4	62.0	100.0
Local	192	-	-	-	9.3	31.5	59.2	100.0
Social service	686	1.6	4.1	6.4	7.7	27.4	52.8	100.0
Environment	**259**	**0.4**	**-**	**0.8**	**2.7**	**8.5**	**87.6**	100.0
Culture	563	5.3	2.5	7.6	10.5	23.8	50.3	100.0
Education/Academic	208	2.4	1.9	3.8	7.7	28.8	55.3	100.0
Religion	97	5.2	-	9.3	21.6	27.8	36.1	100.0
Labor/Agriculture	1997	3.6	4.1	10.7	9.6	25.4	46.7	100.0
Economy	473	2.7	2.7	15.6	15.2	22.2	41.4	100.0
International	42	2.4	4.8	21.4	21.4	19.0	31.0	100.0
Others	18	-	16.7	16.7	-	22.2	44.4	100.0
Total	3643	3.2	2.4	7.2	9.0	**21.0**	**56.5**	100.0

Source: Compiled from the Directory of Korean NGOs by the Citizens Movement Communication Center [http://www.kngo.net/new/pds/pds-cmcc.htm].

However, while the two major South Korean environmental NGOs during the 1990s and early 2000s focused on many issues, the issue of urban air pollution was not a matter of high priority until 2001 (Table 7-2). Most of their activities were centered on environmental catastrophes, such as the polluted river case, and on government-initiated development projects, such as dam construction, reclamation projects, and canal construction. Those issues happened in particular areas with a particular set of local stakeholders. However, the

[175] Schreurs, Miranda A. (2002). "Democratic Transition and Environmental Civil Society: Japan and South Korea Compared." The Good Society 11, no. 2: 57-64.

urban air pollution problem was not a locale-focused issue; it involved the general public as polluters and as victims.

Another characteristic of environmental groups' activities was that even when they seemed to act as a coalition, one specific environmental group, in practice, took the initiative, masterminded all activities, and dominated in the coalition's activities. Not only could no one environmental group deal with all environmental issues at the same time with limited capacity, but also there was often competition among them.[176] For example, KFEM (Korean Federation of Environmental Movement) had devoted its energy to the Semankeum reclamation project[177] during late 1990s and was swamped by opposition activities against the reclamation project during early 2000s. In 2000, the CMEJ (Citizen's Movement for Environmental Justice) took the initiative in opposing the construction of the Kyung-In shipping canal.

Table 7-2. Focus issue of two major environmental groups in South Korea

Year	CMEJ	KFEM
1992	Established	
1993		Established
1994		Nakdong River Phoenol pollution crisis Opposition to the construction of nuclear waste storage facility at Kulup Do

[176] Interview with an environmental enforcement official on May 2005.

[177] The name Saemankeum is given to what is claimed to be the world's largest ongoing reclamation: a 40,100 hectare reclamation project at the mouth of the Mankyung and Tongjin Rivers, in Chollabok Do, west Republic of Korea. Such a reclamation, entailing a 33 km long seawall (56% complete, as of October 1998), it is suggested will expand the national area, help in the supply of agriculture and industrial water, lead to better drainage of adjacent land, and allow development of an international harbor. The saemangeum reclamation project was scheduled to be completed in 2004, but the implementation was stalled due to fierce opposition from environmental groups to protect ecosystem in the wetlands. For more information, refer to the webpage [www.kfem.or.kr/engkfem/issue/saemankeum.html]

1995	*Status of air pollution in South Korea and Acid rain problem* *Establishment of Atmosphere Action Network East Asia (NGO network for transboundary air pollution)* Movement against the Kulup Do nuclearwaste storage facility	
1996	Metropolitan waste problem Pollution problem in Yeocheon industrial complex Protection of greenbelt	Pollution in Sihwa Lake Opposition to the construction of golf course near the Kaya Mt. National park
1997	Opposition to the export of Taiwan nuclear waste to North Korea Opposition to the construction of Inje Dam	Opposition to the export of Taiwan nuclear waste to North Korea
1998	Protection of greenbelt	Opposition to the construction of Dong River dam Opposition to genetically transformed agricultural products Opposition to the Saemankeum reclamation project Protection of greenbelt
1999	Protection of greenbelt	
2000	Opposition to the construction of Kyung-In shipping canal Opposition to the haphazardy development in Yong-In city Energy tax reform	Opposition to the construction of golf course in Nanjido area Movement against the Semankeum project
2001	***Campaign of Blue Sky 21 for green World Cup Soccer games***	The Semankeum project Movement against the dam construction Opposition to the construction of tunnel through Bukhan Mt. National part.
2002	**[02.20]** ***Campaign for the reduction of automobile emissions*** **[03.28]** ***Blue Sky 21 Campaign for green World Cup Soccer games*** **[04.26]** ***Report of air quality monitoring in hosting cities***	Opposition to the construction of tunnel through Bukhan Mt. National part. The Semankeum project **[Nov]** ***Opposition to diesel passenger cars***

	[05.07] ***March on the international asthma day***	

Note: CMEJ: Citizen's Movement for Environmental Justice
KFEM: Korean Federation for Environmental Movement
Source: Complied from the webpages from the two environmental organizations [www.eco.or.kr] and [www.kfem.or.kr].

Since 2001, three environmental groups suddenly became interested in urban air pollution: CMEJ, Green Transport[178], and KFEM. Their interest was sparked by the upcoming World Cup Soccer Games in South Korea in 2002. On Earth Day in May 2001, three NGO groups built a coalition to conduct the "Blue Sky 2002 campaign" to raise the issue of urban air pollution in the cities hosting World Cup games. At that time, CMEJ took the initiative in the campaign.[179] The coalition planned to monitor air quality in the hosting cities, and encourage using public transportation. However, to initiate a campaign for a new subject, they needed to know more about the status of urban air pollution. At the same time, the MOE also wanted to utilize the World Cup events to raise public awareness of urban air quality. Officials from the air bureau were invited to give lectures to environmental groups and helped to prepare the campaign. At this stage, diesel passenger cars were not an issue.[180]

[178] Green Trasport is a NGO, which was established in 1992. It works on the issues of transportation safety, improvement of public transportation, and urban air pollution from automobiles. Green Transport conducted various campaigns associated with urban air pollution: civil monitoring of air quality in 1996, free emissions inspection of operating vehicles in 1998, and less driving campaign in 2000. [www.greentrasport.org].
[179] Although KFEM participated in the campaign too, it was occupied with the movement against the Semankeum project at that time.
[180] Interview with a leader of CMEJ in April, 2005.

Imminent danger of MOE's decision to allow diesel passenger cars

In the mean time, a rumor began circulating that automakers wanted to sell diesel passenger cars in South Korea, and that the MOE would succumb to automaker's request in late 2001. Several news articles had already featured comments by some executive officers of the auto industry on the improvement of diesel passenger car engines and their hope to sell diesel passenger cars in South Korea.[181] On March 5, 2002, a newspaper headline captured the attention of the public and foreshadowed two years of conflict around urban air pollution and diesel passenger vehicles. The headline was "the nerve war between automakers and the MOE on diesel private vehicles."[182] The automakers and vehicle importers began to complain that emission standards for diesel private vehicles were too tough and requested lowering the standards to a more "rational" level.

About two weeks later, another embarrassing news article appeared asserting that Kia was trying to get the MOE to exempt its new diesel RV, "Carens II" from being terminated when the new regulatory classification of vehicle types became effective on July 1, 2002. Kia argued that the company, having already invested heavily in developing and marketing this new model, would suffer.[183] When Kia applied to the MOE for a manufacturing certificate in April 2001, the MOE granted it, but only until June 30, 2002. Kia already knew that it could not manufacture the model after July 1, 2002. But, as the new model of RV was not to be introduced until late March, the company requested the MOE to change

[181] Chosun Ilbo [2001.9.19].
[182] Joongang Ilbo [2002.3.5].
[183] Kyunghyang Shinmoon [2002.3.23]. 'Dispute on the classification of vehicle type for Carens (diesel).'

the regulation. Environmental groups construed this as an ethical breach on the part of industry, and more evidence that environmental concerns had always been overruled by economic development and industrial lobbying in South Korea.

Ultimately, the rumor turned out to be true. An officer of the MOE told a newspaper that the Ministry would consider amending the air conservation law and its regulations to lower the emission standards for new diesel passenger cars to Euro-3 levels starting January 2004, which meant that diesel passenger cars could be sold in South Korea in 2004[184].

The environmental groups saw this as an absurd decision. During late 2001, the MOE was preparing the Special Act for Seoul metropolitan air quality management. Officials from the MOE were privately asking environmental groups for their support in enacting the Special Act, emphasizing the importance of the Special Act for the improvement of air quality in the Seoul metropolitan area.[185] On one hand, the MOE was trying to make a new law for air conservation; on the other hand, to appease Kia, the MOE was acting to increase the number of diesel vehicles, which the Ministry had been blaming for air pollution.

Even though the MOE seemed to stand firm in the matter of the termination of diesel RVs starting on July 1, 2002[186], Hyundai and Kia kept pounding them through extensive and strong lobbying of higher-ups in the government. The objective was to force the MOE to postpone the implementation of the regulation of the classification of vehicle type for

---

[184] Maeil Kyungje Shinmoon [2002.4.11].
[185] Interview with Mr. Koh, Yoon-Hwa in April 15, 2005.
[186] Joongang Ilbo [2002.5.3]. One official from the MOE criticized Hyundai, and Kia for their inaction toward the new regulation, saying "the MOE gave them two years to prepare the new regulation, but they did not do anything for it. It's non-sense."

diesel RVs until 2004.[187] It was just a matter of time before the MOE lost its ground to automakers who could proclaim victory in the name of economic development.188

Being embroiled in the dispute

The situation became much clearer when a high level officer of the MOE visited environmental groups and revealed the MOE's intent to allow diesel passenger cars to be sold in South Korea.[189] He explained why new diesel passenger cars were an unavoidable option for the future and that there was a lot of trade pressure from other countries around marketing diesel vehicles[190].

Environmental groups responded quickly to this imminent issue by building a "Alliance for diesel passenger cars" (hereafter, the Alliance) comprised of 34 civil organizations from environmental NGOs to consumer groups on May 15, 2002. Mr. Seo, Wang-Jin, a leader of the CMEJ and the coalition, described how they built a coalition so

---

[187] Seoul Kyungje Shinmoon [2002.5.6] and Naewoi Kyungje Shinmoon [2002.5.10].

[188] Naewoi Kyungje Shinmoon [2002.5.10]. In practice, Hyundai and Kia believed that the MOE would change the regulations as they wished. They told a news reporter, "The MOE looked very stringent on its surface, but only signature of the Minister of the MOE could change the regulation. So, the MOE eventually will follow our requests."

[189] Interview with Mr. Koh, Yoon-Hwa in April 15, 2005. Mr. Koh, a director of the Air Bureau at that time, revealed the MOE's intent on diesel passenger cars to the environmental groups in order to figure out how the environmental group would react on the decision.

[190] Given the fact that Hyundai was selling diesel vehicles at an increasing rate in Europe since 2001, there was lots of pressure on the MOE to lighten the emission standards for new diesel passenger cars. For example, the Office of the United States Trade Representative (USTR) (2002.1.23), the European Union Chamber of Commerce in Korea (EUCCK) (2002.2.28), and Korea Automobile Importers & Distributors Association (KAIDA) (2002.3.29) criticized high emission standard as unfair trade condition and Korean Ministry of Foreign Affairs and Trade (MOFAT) was afraid that the condition might cause trade conflict with its trade partners. Also, those trade organizations complained that they could not sell their own diesel RVs, such as Land Rover (England), and Grand Voyager (US) due to the new classification of the passenger car type-1 and requested that the MOE reconsider the definition of the vehicle type for diesel RVs.

quickly:[191]

> *"We could create the environmental coalition for diesel passenger cars very quickly. Generally, it was a tradition that environmental groups, especially, civic groups located in Seoul metropolitan area, worked as a coalition for many environmental issues. For communicational purpose, there was a permanent 'coalition organization for environment and society NGOs.'*
> *The CMEJ suggested the Alliance for diesel passenger cars to the members of coalition organization by emails and faxes, and called them for additional information on the coalition. 34 civic groups agreed with our suggestion and discussed the title, purpose, and decision-making rule for the coalition together. The key members of the coalition were the CMEJ, and Green Transport, because we had already worked as a coalition for Blue Sky 2002 campaign and learned many things on urban air quality from the campaign. But, KFEM, the biggest environmental NGO in South Korea, did not participate in the Alliance and even criticized the Alliance[192]. That weakened our strength as a coalition."*

Now the environmental groups were ready to fight against the move toward diesel passenger cars and diesel RVs in order to protect the public from more serious air pollution. The MOE invited the environmental groups to a public forum on "regulation of emissions from diesel passenger cars" scheduled on May 17, 2002, in an effort to hear various stakeholders' opinions on the issues of diesel passenger cars and diesel RVs. However, grave news came from a newspaper[193] on May 16, 2002 that the MOE had already decided to save diesel RVs from the termination by adjusting the regulation again as Hyundai and Kia requested.

---

[191] Interview with Mr. Seo, Wang-Jin on July 16, 2005.
[192] There are several hypothetical reasons why KFEM did not participate in the coalition. One possible reason was that KFEM was so busy with the opposition movement against the Saemankeum project. Another reason might be the two organizations competed in environmental movement. But, KFEM publicly explained in its public statement why it did not participate in the Alliance on July 4, 2002. "We did not join in the Alliance, because there was no sincere, rational, and informed discussion among environmental groups on how to develop the Alliance and there was not enough time to assess whether KFEM should participate in the Alliance or not. We could not participate in the Alliance without appropriate information and judgement on the issue. Also, we highly suspected that the MOE was utilizing environmental groups to justify its urgent decisionmaking, which would favor the auto industry."
[193] Dong-Ah Ilbo [2002.5.17].

Box 7-1 below summarizes the problems the Alliance faced in early 2002, their positions and interests on the issues, and their strategies, based on interviews[194] with the leaders of the Alliance.

[194] Interview with Mr. Seo, Wang-Jin, the leader of CMEJ on July 16, 2005. Interview with Mr. Min, Man-Ki, the leader of Green Transport on June 10, 2005.

Box 7-1. Summary of problems for the Alliance

Problems

For environmental groups, who should represent the public's interest in environmental issues, the focus in their movement has not been on urban air pollution so far, although almost 90% of the public believes that urban air pollution is the most serious environmental problem. That's partly because urban air pollution issue requires high level of scientific and technical knowledge to fully understand the issue. Thus, environmental groups could not notice and follow up such important changes in urban air pollution policies during 1999-2001.

The striking thing is that the current high emissions standards for diesel passenger cars were decided by the industry and the MOE in a closed room in the past. For diesel RVs, the industries did not take any measure although they knew the existence of regulations to make their diesel RVs terminated in 2002.

The situation in early 2002 is imminent. Always set back by those powerful economic Ministries, in terms of regulations on automobile pollution so far, the MOE is about to allow diesel passenger cars and diesel RVs. If the government decision is made by itself as the final one, it is very hard to change the course by only demonstrations of the environmental groups on the streets.

Issues, positions, and interests

- The emission standards for new diesel passenger cars should not be lowered and diesel RVs should be terminated. Agreeing to allow new diesel passenger cars and diesel RVs is hardly justifiable for the Alliance of the environmental groups, given the seriousness of urban air quality. But, more fundamental measures should be taken for the issue of diesel vehicle pollution.
- The situation is so imminent. The Alliance needs more time to response to the MOE's move toward economic rationale.

Strategies

- Request the MOE to establish a dialogue forum where the Alliance can participate as citizen representative in order to secure the time to respond and balance the power against the economic development rationales.
- Make sure that the forum should not be just an advisory meeting, where the MOE just hears what the Alliance says. If it is not the case, the Alliance should walk off the forum.
- Let the public know what's happening by apply ordinary tactics of NGOs: write to the media, demonstrations against the industry, and street performances.
- Directly meet decision makers, such as the Minister, politicians, staff in the Blue House to persuade them.

Table 7-3 shows the map of interests among major stakeholders described so far.

Figure 7-1 depicts the distribution of power and relations among stakeholders.

Table 7-3. Part of conflict Assessment matrix with the Alliance

Issue / Stakeholder	Manufacturing Diesel RVs	Emission standards for new diesel passenger cars	Adjustment of fuel price (Gasoline: Diesel: LPG)	Legislation of the Special Act	Joint decision-making	...
KAMA	★	★	•	+/	•	
Hyundai (KIA)	★	★ 2004 Euro-3 2005 Euro-4	100:75:60	•	•[195]	
Daewoo Motors	--	-- until 2006	100:75:60	•	•	
Ssangyong	--	-- until 2006	100:75:60	•	•	
Samsung Motors	•	• 2005 Euro-4	100:75:60	•	•	
MOCIE	★	★ 2004 Euro-3 2005 Euro-4	100:75:60	--	--	
MOCT	•	•	•	--	•	
MOF	•	•	100:75:60	-/	--	
MOE	-/+	+/ 2005 Euro-3 and Euro-4	★ 100:85-95:47-55	★ by 2003	★	
The Alliance	-/	-/	★	+	★	
...						

Note: ★: Very important interest
+: Pro
+/: Conditional Pro
•: Neutral
-/: Conditional Con
--: Con

[195] The Auto industry did not want to involve the environmental groups in the decision making process. But, when the MOE called for them to participate in the Joint Commission, they could not but do that as the regulatory targets. (Interview with Hyundai officers on June 09, 2005, Interview with Mr. Ahn, Moon-Soo at the MOE on June 20, 2005.

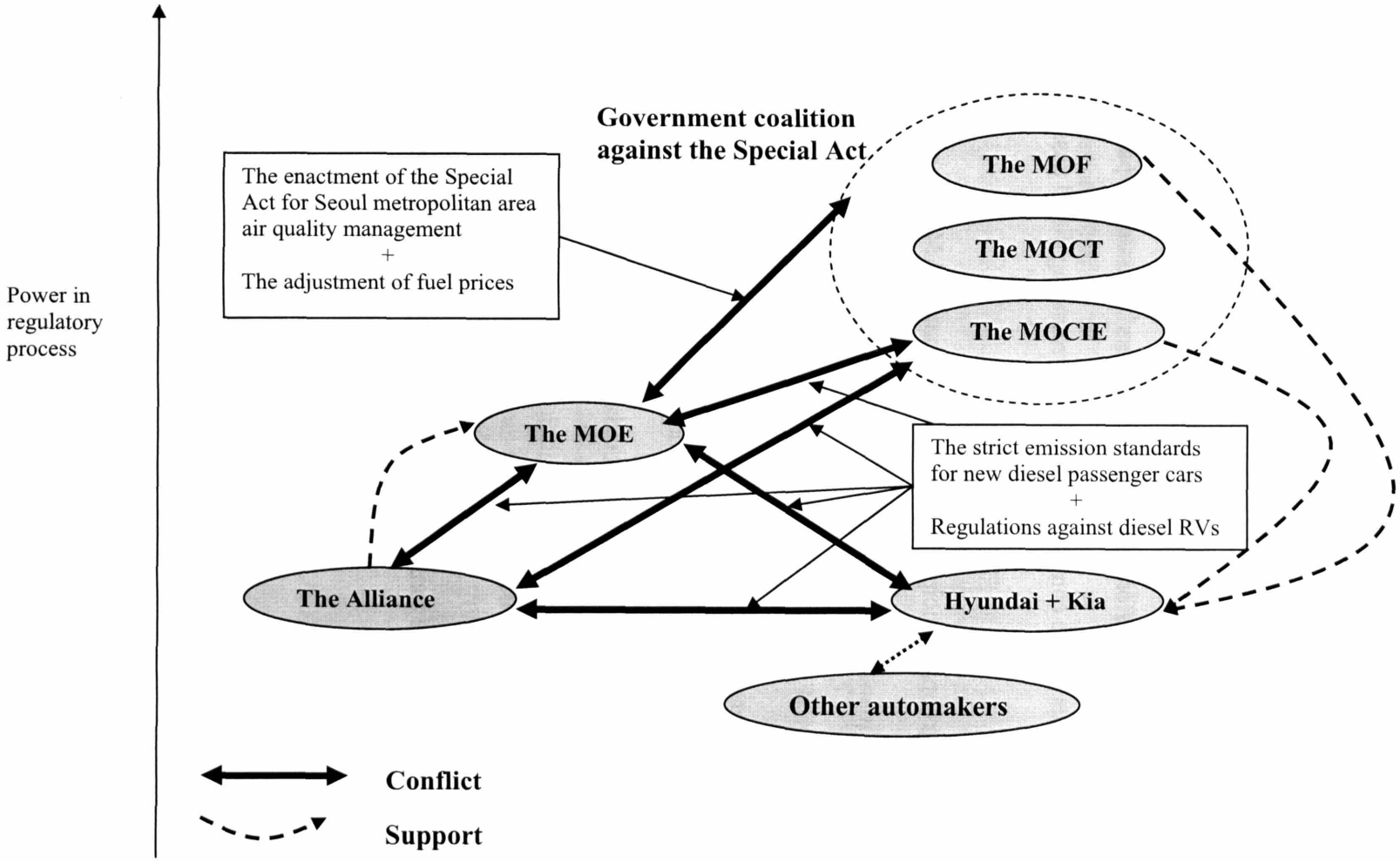


Figure 7-1. Multi-Stakeholders' power and relations in controversial issues in the regulatory process in a more complex setting

Stakeholders in a Public forum

As the MOE announced, the public forum convened by KAMA and sponsored by the MOE and the MOCIE for diesel passenger cars was held for four hours on May 17, 2002. The MOE sponsored the forum in an effort to gauge stakeholders' attitudes, in particular, environmental groups' attitudes on the controversial issues surrounding diesel passenger cars and diesel RVs.

Various stakeholding groups participated in the public forum: KAMA, several journalists, the Ministry of Finance (MOF), the MOCIE, the Alliance, and the Ministry of Foreign Affairs and Trade (MOFAT), the Korean automobile importers and distributors association (KAIDA), a congressional staff member, an automobile expert from KIMM, and an air pollution expert from a research institute. The points at issue were whether to allow diesel passenger cars by alleviating emission standards and whether to allow Hyundai and Kia to sell their diesel RVs by amending the regulation of classification of vehicle types.

Analyzing their arguments in the forum reveals those stakeholders' positions on the two issues (Figure 7-2).

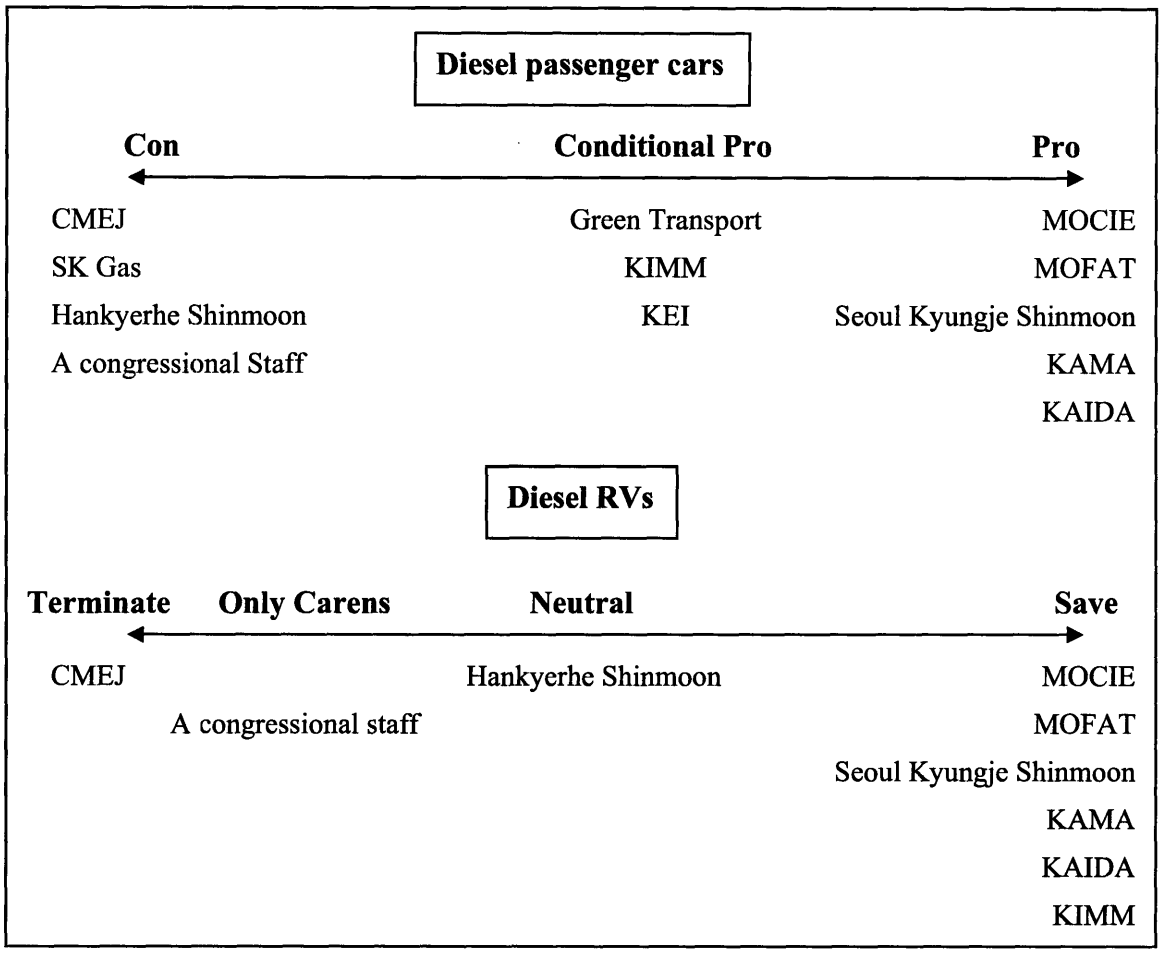


Figure 7-2. Spectrum of positions from various stakeholders on the two issues in the public forum on May 17, 2002.

As expected, the MOCIE, the MOFAT, KAMA, KAIDA, and the economic news paper supported the interests of Hyundai and Kia, arguing in favor of introducing diesel passenger cars into the domestic market. At the other end of the spectrum, the CCEJ stood firmly against both issues, criticizing the government. A newspaper and a congressional staff person with an environmental bend in his career path were against diesel passenger

cars. Interestingly, the leader of Green Transport,[196] one of the two core organizations in the Alliance, took the position that diesel passenger cars should be sold as long as certain preconditions were met through other environmental measures.

The Joint Commission to resolve the dispute associated with diesel vehicles

Only one day after the public forum on May 17, 2002, the MOE and the Alliance issued a public announcement to the major media that they would establish a "Joint (Civil society, Industry, and Government) Commission to resolve the dispute associated with diesel vehicles" (hereafter, the Joint Commission) on May 18, 2002. According to the announcement, the Joint Commission would kick off on May 24, 2002 with the government side (the MOE, the MOCIE, and the MOF), the civic side (the Alliance), the industry side (major automakers, major oil industries, LP gas industry), and experts participating. The topics for discussions included:

- Joint-fact finding for additional emissions on the contingency of new diesel passenger cars on the streets,
- Countermeasures to reduce emissions from diesel vehicles,

[196] Mr. Min, Man-Ki, the leader of Green Transport, participated as external adviser in KIMM's controversial report on the Establishment of Vehicle Emissions Standards after 2000. Thus, he knew that Hyundai and Kia were developing diesel passenger cars and would request the rationalization of the emission standards around year 2001. Although he belonged to the Alliance, he could not be in the position to argue that diesel passenger cars should be banned in any circumstances.

- Possible projects by automakers to fulfill their social responsibilities and duties,
- Options in adjusting the energy price system, and
- Options in introductory timing and level of emission standards for new diesel passenger cars.

The Joint Commission as the first round of Consensus-building stream

The Joint Commission was distinct from previous conventional governmental decision making efforts in several aspects, especially in terms of dealing with public disputes. First, conventional governmental policy making for urban air pollution in South Korea had followed the model of Decide, Announce, Defend, and Amend (DADA). In the problem stream, the technocrats in the MOE and the experts associated with them usually diagnosed serious urban air pollution problems. While some private entrepreneurs argued for some technical solutions, such as DPF installation, in policy streams, developing the list of options in the policy stream had been in the hands of technocrats and some experts inside the government. When a decision announced by the MOE faced challenges from industries and other Ministries, consensus had usually been made at the Ministerial meetings in the politics stream to amend the MOE decision in consideration of economic factors.

The Joint Commission was created to narrow possible policy options and to develop a policy proposal before the government finally announced the decision. Thus, the Joint Commission was designed to function as part of both the conventional policy and politics

streams. However, in terms of participants, the Joint Commission represented a new stream distinctly different from the conventional policy stream in which only government officials and experts participated, as well as from the conventional politics stream in which government agencies coordinated only with each other to reach a final decision.

Participants in the Joint Commission included civil society groups such as NGOs and members of the business sector, such as the auto industries and oil industries, as well as other governmental sectors and experts. Consider the comment of the MOE official on the MOE's conventional way of developing policy at that time:[197]

> *"Conventionally, when our decisions are challenged by industries and the MOCIE, we discussed the matters inside the MOE and the decisions should go through the coordination process with relevant Ministries. We sometimes consult with experts on the matters, held public forum, and public hearings before we make a final draft of the decisions. Then, we put the draft out of a public notice and comment process. If necessary, we can open a public forum again. Then, after the process, we implement or amend the regulation. If there is still a dispute or complaint in society or among stakeholders, there are two options: suppress them or ignore them. In 2001, it seemed that the MOE was suppressing Hyundai and Kia with regulations..."*

Second, the Joint Commission aimed at building consensus among stakeholders. It was not just another advisory committee, public forum, or public hearing, where stakeholders could have the opportunity to just talk to the government and others. Although the consensus decision would not be the final government decision, participants were supposed to decide together and build consensus on decision items.

Third, the Joint Commission involved multiple stakeholders considering multiple issues. Conventionally, the MOE had contacted stakeholders separately and individually,

---

[197] Interview with Mr. Ahn, Moon-Soo, the former director of transportation pollution department at the air bureau of the MOE on June 20, 2005.

rather than meet them all together at the same time.

Fourth, the Alliance officially requested the MOE to create a new structure for decision making[198]. It was a bottom-up approach, rather than the conventional top-down process.

How was the initiation of the Joint Commission possible?

New attempts often incur resistance. There is a lot of inertia, or resistance to change, in policy processes (Kingdon, 2001). One characteristic of pluralist government is the ability of a few powerful industry economic interests to insulate themselves from the influence of large-scale democratic forces through the creation of relatively independent depoliticized sub-governments.[199] Such systems of limited participation are thought to be highly resistant to change (Cobb and Elder, 1983).For these reasons, it was expected that the auto industry, the MOCIE, and the MOF would resist the establishment of a participatory decision-making venue like the Joint Commission, since they been able to influence environmental decision making inside the government under the conventional systems. In the interviews for this research, MOE officials recollected how fierce the complaints from the MOCIE and even within the MOE were against allowing the Alliance

[198] On the public scence, the MOE did not ask the Alliance to come to the new Commission. But, it is not certain that there was a communication on this form of dialogue between the MOE and the Alliance before the Joint Commission. The statements from the interviewees were not same in this issue.

[199] The succession of terms that scholars have used to describe subsystem politics – from "iron triangles" to "issue networks" to "advocacy coalitions" – from tightly structured systems of limited participation through more fluid boundaries and easier access to the incorporation of conflict within the subsystem (Heclo, 1978; Sabatie, 1988).

to join the Joint Commission:

> *"We (the MOE official and the MOCIE official) were flushed with anger in talking about the Joint Commission. An official from the MOCIE complained why the MOE was taking the decision issue, which should be solved inside the government, out of the government. He argued that the government, as the representative of the public had an authority to make governmental decision and thus, the decision should not be swayed by NGO's influence. He event went further to say that the MOE conspired with the Alliance on every issue. I responded to him with the counter-argument that public decisionmaking was not dominated by government officials. For example, look at the jury system in the US. Decision on being guilty or not are made not by judges, but by juries. Judges only impose sentences according to the gravity of guilt. I suggested to him that we needed another model of decisionmaking and probably the Joint Commission was the model. Then, the MOCIE official questioned which countries were using a model like the Joint Commission. And I just said that the MOE would go with the Joint Commission. The MOCIE official shouted that if so, the MOCIE could not participate in the Joint Commission[200]."*

> *"Even within the MOE, many officials fiercely opposed the idea of the Joint Commission. Their rationale was almost the same with that of the MOCIE that the MOE had public power and should execute the power by itself. They could not understand why the MOE seemed to be swayed by environmental groups[201]."*

Another obstacle to the participatory Joint Commission existed within environmental groups. All members of environmental groups did not embrace the concept of a participatory Joint Commission. Inertia also existed in environmental groups who were accustomed to the confrontational tactics that had characterized their movement. Consider two comments from leaders of the two major environmental groups in this case study:

> *"When we (the Alliance) suggested to the MOE that the Joint Commission should be created on May 17, 2005, we were not certain that the MOE would accept our proposal. At that time, we suspected that the MOE already had made the decisions, favorable to the auto industry, due to the pressure from*

[200] Interview with Mr. Ahn, Moon-Soo, the former director of transportation pollution department at the air bureau of the MOE on June 20, 2005.
[201] Interview with Mr. Koh, Yoon-Hwa in April 15, 2005.

the MOCIE, and the MOF. Even the MOE official revealed that diesel passenger cars could be promising alternatives for the future auto market for environmental reasons. Thus, there was fear inside the Alliance that environmental groups might be co-opted by the MOE in its effort to justify already-made decisions and we might play only a supporting role to the MOE.[202] "

"We (KFEM) did not participate in the Alliance. The issue of urban air pollution associated with diesel passenger cars was a very technical issue, which required expertise on various fields. Given that environmental groups lacked such knowledge, it was too risky for them to engage in the dialogue with the MOE and other industries in too much detail. Furthermore, we suspected that the MOE had been captured by the auto industry so far.[203] "

The relevant question is how could such inertia be overcome? To be more specific, how was the creation of the Joint Commission possible? The creation of the Joint Commission is traceable to the strategic motives of the MOE and the Alliance with the help of the politics stream during 2000-2002.

Politics stream to take advantage of (2000-2002)

The political regime in South Korea started to change in 1987. The democratization process had developed as the government evolved from a "Civil Government" (1993-1997) to a "People's Government" (1997-2003). During 2000-2002—the later stage of the "People's Government," there were two major changes in the policy streams (see Chapter 6). The politics stream carried over from the previous government as democratization continued. Three characteristics of the politics stream during 2000-2002 are useful in

[202] Interview with Mr. Seo, Wang-Jin, the leader of CMEJ, on July 16, 2005.
[203] Interview with Mr. Jang, Jae-Yeon, the leader of KFEM, on July 8, 2004.

explaining the advent of the Joint Commission in 2002: 1) tension between the MOE and other development Ministries, 2) countervailing power of environmental groups, and 3) strategic alliance between the MOE and environmental groups.

These three features of the politics stream facilitated policy entrepreneurs' strategic action in responding to the two changes in the policy streams during those years.

Tension between the MOE and other economic development ministries

In economic development projects initiated by the government, especially by the Ministry of Construction and Transportation (MOCT), the MOCIE, and the Ministry of Agriculture (MOA), the MOE played the role of troublemaker. The MOE regulatory process regularly intervened to protect environmental interests during development projects such as dam construction, tunnel construction, and land reclamation. Sometimes, officials of those economic Ministries tried to shun MOE officials in governmental meetings[204].

However, when the MOE pursued its goal of improving environmental quality through its regulatory power, those other Ministries, which outnumbered the MOE in terms of budget and political resources, were equally obstructive. The issue of diesel RVs and diesel passenger cars could be addressed with the MOE's regulations. Other important related issues, such as the change of fuel prices, lay in the jurisdiction of the MOF and MOCIE.

Finally, it is believed that the turf wars among government agencies becomes fiercer

[204] The environmental journalist club (2001). "The reason why salmons do not return."

when an administration is in its final stage as agencies position themselves for maximum power before a new administration begins. As the presidential election of December 2002 drew near, some turf wars between a few Ministries were observed. It is not clear that such tension affected the dispute between the MOE and the MOCIE later on but there had always been tension between them.

Countervailing power of environmental groups

The power of environmental groups had been exerted in several cases before 2002; many government-initiated development projects had been blocked by harsh resistance from environmental groups, through political rallies and litigation brought by NGOs. They had considerable leverage in any policy discourse associated with environmental concerns.

In 2001, some environmental groups suddenly became interested in urban air pollution. The motive for their interest was the World Cup Soccer Games to be held in South Korea in 2002. On Earth Day in May 2001, three NGO groups built a coalition to conduct a "Blue Sky 2002 campaign" to raise the issue of urban air pollution in the cities hosting cities World Cup games. They were eager to learn more about urban air pollution.

Strategic alliance between the MOE and environmental NGOs

Among all governmental agencies, the MOE had maintained the closest relationship with environmental NGOs. Since 2000, the MOE had maintained a regular communication

channel with environmental groups. In fact, these groups had established their own coalition organizations in the name of "policy coordination meeting with environmental groups." Twenty representatives from environmental organizations met with MOE officials four times a year regularly in order to share information and discuss various environmental issues. From the MOE, all directors and sometimes the Minister, participated in those meetings.

Ms. Kim, Myung-Ja, as Minister of Environment during those times, once proclaimed that the MOE needed "governance," a new, collaborative model of decision making, rather than "government."[205] The MOE and environmental groups needed each other for strategic purposes. Environmental groups were always eager to meaningfully participate in governmental decision making. The MOE needed supporters to combat economic development rationales, which had always proved more powerful than the MOE's conservation rationales.

Strategic motives of the MOE and the Alliance

The MOE wanted a new decision-making structure like the Joint Commission (see the Box 6-2 in Chapter 6) for four reasons. First, the MOE wanted to stave off the anger of the environmental groups by persuading them to look at the bright side of new diesel passenger cars through education. The MOE believed that diesel passenger cars would be the appropriate alternative in automobile transportation as the technology developed. A series

[205] In an address to the students at Ewah Women's University, in 2002.

of dialogue at the Joint Commission with many experts would be a great opportunity for that purpose. From this perspective, the MOE could be seen as representing the interests of the auto industry.

Second, the MOE intended to gain some objectives through trade-offs of some things the auto industry wanted The MOE was most interested in the adjustment of the energy price system and the enactment of the Special Act for Seoul metropolitan air quality management. Without the support of the environmental groups, the MOE could not be sure of getting those things in the current conventional decision-making system. Thus, the MOE needed to involve the Alliance in a new decision-making structure like the Joint Commission. The irony was that the more the Alliance criticized the MOE, the stronger the MOE became in its fight with the MOCIE and the MOF. It was true that the MOE could raise its voice more loudly within the government when the environmental groups were fiercely opposing them.

Third, in the environmental political regime since the DJ administration in South Korea, environmental groups were exerting very powerful influences on governmental decisions, such as dam construction. They often succeeded in blocking development projects initiated by the government. Furthermore, more and more people associated with civil movements, were being appointed to higher positions in the government. That gave NGOs more political resources than ever before. The MOE could not just ignore resistance from environmental groups. In addition, the MOE did not want to damage its good relationships with the NGOs. A MOE official expressed his concern about the Ministry's

relationship with the Alliance:[206]

> *"When industries cried out that they could not but shut down their factories in order to comply with certain regulations, the MOE usually adjusted the regulations to consider their situations. However, the MOE often ignored such requests. The other day, bus manufacturing had been stopped for about three months by regulations. But, if the MOE had only taken into consideration the situation of the auto industry in terms of diesel vehicles at that time, there would have been much agitation and dispute in society. Civil organizations would have had rallies on the street everyday and the relationships between the MOE and environmental groups might have been damaged."*

The fourth reason was "social consensus," as mentioned by Mr. Koh in a newspaper interview[207] in which he commented on the conditions under which the MOE might rationalize emission standards for new diesel passenger cars. Perfunctory public hearings or public forums could not achieve what he meant by social consensus. He wanted the general public to understand the controversial issue and be given the opportunity to think about which approaches might be most appropriate. The media provided the mechanism by which the public could learn the required facts, and the media would cover the discussion of the Joint Commission.[208] Thus, the MOE wanted to make the issue known to the public by establishing a new decision-making structure.

For the Alliance, five rationales existed to create a new participatory decision-making body (see the Box 7-1 in this chapter). First, the Alliance wanted to delay the MOE's decision and the creation of another decision-making venue would take time; Second, the Alliance wanted offset pressure on the MOE from the MOCIE, the MOF and auto industry

---

[206] Interview with Mr. Koh, Yoon-Hwa in April 15, 2005.
[207] Hankook Kyungje (2001.9.19).
[208] Interview with Mr. Koh, Yoon-Hwa in April 15, 2005. Interview with Mr. Ahn, Moon-Soo, the former director of transportation pollution department at the air bureau of the MOE on June 20, 2005

lobbyists by participating directly in the Joint Commission. Third, the Alliance wanted to share the issues with the general public through media coverage of the Joint Commission process. Fourth, the fact that the Minister of Environment, Ms. Kim, Myungja, was close to NGOs paved the way for the Alliance to request participatory decision-making. According to a member of the Alliance,[209] Ms. Kim had good relationships with environmental groups and they could relate to her. Fifth, environmental groups had been gaining experience in new governance mechanisms through participation in a few instances of environmental decision making. For example, environmental groups had participated in the private-public committee working toward resolution of public disputes around the Dong River dam construction project, and the Saemankeum reclamation project. They wanted to bring these new governance techniques to bear on urban air pollution regulations as well.[210]

Aiming toward consensus building

The next question is how participants came to choose consensus building as the decision rule for the Joint Commission. Even in participatory decision making, the decision rule is not necessarily consensus building. An in-depth interview with a core player in the creation of the Joint Commission traces the origin of this decision to the individual's personal experience in previous regulatory processes. Mr. Koh explained in detail how he

[209] Interview with Mr. Seo, Wang-Jin, the leader of CMEJ, on July 16, 2005.
[210] Interview with Mr. Seo, Wang-Jin, the leader of CMEJ, on July 16, 2005.

came to cherish consensus building as a decision rule:[211]

> *"First of all, I did not have any opportunity to take a course of consensus building before. But, I got my first personal hint on consensus building, when I went to Japan for a training workshop in the late 1980s. There, I met a Japanese director of the waste management department in a very small town. What was impressive to me was that it had taken 20 years to build a sanitary landfill in that town due to resistance from the town residents. He had been working there from the first dispute to its resolution for 20 years! I heard from him his experience of dealing with residents. It was more about methodological aspects...*
>
> *When I was assigned to the waste department at the MOE in 1991, I tried to apply what I heard from Japan to the case of the Hwa-Sung waste management facility dispute. The town residents strongly believed that newborn calves with defection in their town were due to the waste materials discharged from the facility operated by the MOE. Residents requested that the facility be closed right away. That case was a Korean version of Love Canal. When I suggested consensus building through dialogue with residents, people said non-sense the first time. But, I acknowledged residents as partners for dialogue first, and then tried to make consensus, however long the discussion might be...*
>
> *I proposed to create a six-member committee to build a unanimous consensus among them. 3 representatives recommended by the residents, 3 representatives from the MOE, and 3 representatives from environmental groups negotiated until they reached a unanimous final decision to solve the dispute. When the three resident representatives agreed with the final decision, there was no more public dispute. I was convinced at that time that consensus building could work better rather than majority voting...*
>
> *Thus, the consensus building mechanism was not a result of the request of the Alliance, or pressure from more participatory government, but purely from my personal learning, which was built up through my past experience. I believed that the most important factor in public negotiations was building consensus."*

Environmental groups acknowledged the fact that Mr. Koh, as a presider and facilitator of the Joint Commission, insisted on consensus building as a decision rule from

[211] Interview with Mr. Koh, Yoon-Hwa in April 15, 2005.

the beginning.[212]

Initiation factors of the Joint Commission

Previous analysis has explained how events and conditions in the specific politics stream made it possible for some policy entrepreneurs to initiate the Joint Commission. This section analyzes how the seven initiation factors of the consensus building stream of the Joint Commission were constructed. These included

- I1: Use of a neutral skilled facilitator
- I2: Conflict Assessment
- I3: Inclusion of a full range of stakeholders
- I4: Multi clear issue to allow trade-offs across the issue
- I5: Supporting organizations with implementation power
- I6: Financial support for process
- I7: Time pressure and deadline

Many scholars (Susskind et al, 1999) regard those factors as necessary and important conditions for successful consensus building. Undertaken at the very beginning of the process, these design factors can affect the outcome of the consensus-building effort. This section outlines each initiation factor as it operated in the Joint Commission.

[212] Interview with Mr. Seo, Wang-Jin, the leader of CMEJ, on July 16, 2005.

I1: Use of a neutral skilled facilitator

The use of professional neutral facilitator in managing the process is strongly recommended in the theory and practice of consensus building (Susskind, 1999). A neutral facilitator, or a team of neutrals, engaged by conveners with the consent of stakeholder representatives, can provide impartial assistance in achieving all of the steps necessary to lead to successful consensus building, such as conflict assessment, ground rules setting, joint fact-finding, and so on. A skillful facilitator can play a central role in identifying stakeholders and issues, in ensuring that the parties check back with their constituents, in ensuring that all stakeholders agree upon needed changes following the consensus, and in managing the process efficiently and fairly. The motives of convening organizations are likely to be suspected by stakeholders; neutral and skillful facilitators can overcome such suspicion.

In the Joint Commission, ***there was no neutral facilitator.*** The meetings were presided over by Mr. Koh from the MOE. He facilitated the process, including setting ground rules, recognizing speakers, and establishing a private small caucus with stakeholders. There was no way to judge whether Mr. Koh was professional in facilitating the meeting. However, it was certain that he was not neutral on the issues associated with diesel vehicles and urban air pollution. He had specific (possibly hidden) interests in the Joint Commission.

All stakeholders participating in a consensus-building process have standards for neutrality. Whether or not Mr. Koh managed the process impartially, if other stakeholders did not think Mr. Koh was in a neutral position, his neutrality was impaired. Some

stakeholders, even the Alliance, suspected that the MOE might have a hidden agenda throughout the process and that they, as Commission participants, could be utilized in its purpose. The MOCIE, and other industries argued that the MOE was swayed by the Alliance in every matter. That kind of distrust could not be helpful in reaching or implementing any agreement.

I2: Conflict Assessment

Conflict assessment is a process which should be conducted by neutrals. It helps to identify the conflicting issues and legitimate stakeholders, figure out areas of potential agreements by drawing an issue-stakeholder map, and even propose some initial steps for consensus building among identified stakeholders. Identifying all relevant stakeholders and important issue areas is the first and foremost step in a consensus-building process.

Since there were no neutrals in organizing the Joint Commission, ***there was no conflict assessment.*** Instead, the MOE officials had met each stakeholder group in separate policy meetings to consult with them on various issues before the Joint Commission began. Also, the MOE used the public forum to figure out how stakeholders would respond to the MOE's potential decisions. Thus, it might be argued that the MOE had enough information on what the controversial issues and problems would be in initiating the consensus-building process before the Joint Commission.

However, even if the MOE could discern the interests and concerns of relevant stakeholders from these meetings, it could not have acquired as much information as a neutral facilitator could have gotten from stakeholders through interviews in very friendly

and neutral settings. Such information would have included who might best represent the interests of each group; who should not be excluded from the Commission; what might hinder initiation of the participatory process; how they should address these problems before the Joint Commission started; which issues were most important and why. If those concerns and interests in establishing the consensus-building process had been shared and addressed by circulating a conflict assessment report to all stakeholder groups, stakeholder representatives would have been more comfortable buying into the Joint Commission process.

I3: Inclusion of a full range of stakeholders

The legitimacy of a consensus-building process depends on the public's perception that the effort is representative of all interests and all points of view. It gives stability to any outcome. Otherwise, any agreement is likely to be contested as unrepresentative by excluded parties.

When the MOE and the Alliance announced on May 17, 2005 that they would agree to create the Joint Commission, they attached a list of selected participants from various stakeholder groups (Table 7-4). According to the list, a total of 26 people were selected to participate in the Joint Commission. Nominated participants included two representatives from the MOE, two from the MOCIE, one from the MOF, five representatives from the Alliance, five from different automakers, four from different oil companies, two from different gas companies, one expert nominated by MOE, two experts nominated by the Alliance, and two experts nominated by industry. The inclusion seemed quite broad.

Table 7-4. Selected Participants for the Joint Commission.

Affiliation	Association	Title	Name	Remark
Government	MOE	Director of the air bureau	Koh, Yoon-Hwa	
		Director of the transportation pollution department	Ahn, Moon-Soo	Government secretary
	MOCIE	Diretor of the transportation industry department	Moon, Jae-Do	
		Director of resource policy department	Oh, Il-Hwan	
	MOF	Director of comsumption tax department	Yoon, Young-Sun	
NGO	CMEJ	First Secretary	Seo, Wang-Jin	
	Green Transport	First Secretary	Min, Man-Ki	
	Consumers Korea	Secretary General	Kim, Ja-Hye	
	Green Korea	First Secretary	Kim, Jae-Nam	
	Green Consumer Network	Secretary General	Lee, Deok-Seung	
Automaker	Hyundai	Executive Director	Jae, Gal-Gul	
	Kia	Vice President	In, Chi-Wang	
	Daewoo	Executive Director	Lee, Sung-Sang	
	Ssangyong	Vice President	Lee, Soo-Won	
	Renault Samsung	Vice President	Jung, Won-Gu	
Oil Industry	LG	Executive Director	Hong, Hyung-Jong	
	SK	Executive Director	Park, Young-Duk	
	S-Oil	Executive Director	Nam, Jong-Bae	
	Incheon	Vice President	Jun, Ki-Tae	
Gas Industy	SK	Executive Director	Shim, Jae-ui	
	LG	Executive Director	Kang, Ho-Yeon	
Expert	Dong-Shin Univ.	Professor	Jun, Ui-Chan	Nominated by the MOE
	Seoul City Univ.	Professor	Dong, Jong-In	Nominated by NGOs
	Soo-won Univ.	Professor	Jang, Young-Ki	
	Korea Univ.	Professor	Park, Shim-Soo	Nominated by Industries
	Kun-Koon Univ.	Professor	Seon, Woo-Young	

Two days after the Alliance proposed this structure, the MOE accepted the proposal and the two entities announced the creation of the Joint Commission. Thus, the MOE and the Alliance may be credited with initiating the Joint Commission. They decided on the

discussion agenda themselves just in a day and announced it on May 17, 2005.[213] Since the MOE intended to trade diesel passenger car sales for other regulations it found more important such as energy price, and large diesel vehicles, the announced agenda was very comprehensive, including counter-measures to reduce emissions from diesel vehicles, and adjustment of energy fuel price. Because the Joint Commission was supposed to deal with the very comprehensive range issues, the range of stakeholder groups was equally broad, including the MOCIE, the MOF, oil industries, gas industries, and experts.

The MOE tried to recruit a balanced group of experts by having stakeholder groups to nominate them. Environmental groups nominated two professors supporting their views, and auto industries nominated the other two professors supporting theirs.

However, at the first meeting in a civic center near the MOE on May 24, 2005, the representation of stakeholders was slightly different from the original list of the participants. First, only 19 participants appeared (Table 7-5). One director from the MOCIE did not participate. The MOF sent a lower-level official to the meeting instead of the director of the consumption tax department. From the Alliance, only two core environmental groups and one consumer group participated. While Hyundai and Kia sent executive-level officials, other automakers sent their deputy –director-level officials to the meeting. From the oil industry, only LG Oil participated. An LPG association was added to the list. Two of the

---

[213] Interview with Mr. Seo, Wang-Jin on on July 16, 2005. CMEJ and Green Transport gathered opinions from the Alliance on the participants and decision agenda. The MOE was supposed to consult with other Ministries and industries in those issues.

experts did not participate in the first meeting.[214]

Table 7-5. 19 Participants for the first meeting (May 24, 2005).

Affiliation	Association	Title	Name	Remark
Government	MOE	Director of the air bureau	Koh, Yoon-Hwa	
		Director of the transportation pollution department	Ahn, Moon-Soo	Government secretary
	MOCIE	Diretor of the transportation industry department	Moon, Jae-Do	
	MOF	***Secretary*** at comsumption tax department	--	
NGO	CMEJ	First Secretary	Seo, Wang-Jin	
	Green Transport	First Secretary	Min, Man-Ki	
	Green Consumer Network	Secretary General	Lee, Deok-Seung	
Automaker	Hyundai	Executive Director	Jae, Gal-Gul	
	Kia	Vice President	In, Chi-Wang	
	Daewoo	***Deputy Director***	--	
	Ssangyong	***Deputy Director***	--	
	Renault Samsung	***Deputy Director***	--	
Oil Industry	LG	Executive Director	Hong, Hyung-Jong	
Gas Industy	SK	Executive Director	Shim, Jae-ui	
	LG	Executive Director	Kang, Ho-Yeon	
	LPG Association	Executive Director	--	
Expert	Dong-Shin Univ.	Professor	Jun, Ui-Chan	Nominated by the MOE
	Seoul City Univ.	Professor	Dong, Jong-In	Nominated by NGOs
	Korea Univ.	Professor	Park, Shim-Soo	Nominated by Industries

This balance of representation has very important implications, demonstrating the degree to which stakeholder groups were eager to participate in the process. While the MOE had two core officials (Mr. Koh, and Mr. Ahn) in front, the MOCIE and the MOF

[214] Mr. Koh commented on the importance of the experts who were participating in the Joint Commission. He believed that experts could make change, not government officials, because the public tended to think that governmental officials lack expertise. When it comes to the selction of experts, Mr. Koh emphasized the balance. First, The MOE suggested the list of experts to the Alliance and then, asked the Alliance to comment on the list and to recommend anyone whom the Alliance wanted. He told that if experts were excluded from the list, there would be problem later. (Interview with Mr. Koh on April 15, 2005)

were not interested, and in fact opposed participatory decision making. Only one director from the MOCIE was present, and played a reconnaissance role, reporting back to the MOCIE what was going on in the Joint Commission. The MOF just sent a lower secretary to the Joint Commission. As for the Alliance, only the two core members (Mr. Seo, and Mr, Min) of the coalition focused on the process.

As for the industry representatives, it is more accurate to say that they were ordered to participate rather than to say that they were invited to participate. As regulatory targets of the MOE, they had to show themselves in the Joint Commission, even though they did not want to. MOE officials were confident that industries would participate in the Joint Commission:[215]

> *"What if the industries would not want to come to the Joint Commission? I thought that they would come, because they were our regulatory targets. They might fear what could happen if they did not show themselves in the meetings. The MOE was in the position to press the industries on that issue."*

However, the way in which the industries came to the table warrants further scrutiny. There were other motivations behind industries' decisions to participate in the Joint Commission. The first incentive was economic. Participation in agreements might lead to direct cost savings and reductions of liability-related costs, regulatory costs, future compliance costs, and administrative costs. In other words, companies wanted to reduce the impact of regulations on their operations. Commission participation was a strategic act, as participation in voluntary approaches had the potential to shape the policy process. Second, they were afraid that they would lose any pro-environment image they had by not joining in

[215] Interview with Mr. Koh, Yoon-Hwa in April 15, 2005.

the Joint Commission.[216]

Third, among the different members of the auto industry, there were different interests. Each had an incentive to shape final agreements in ways that would enhance their own competitive position. Hyundai and Kia sent executive-level officials to the first meeting, because they had a major stake in Joint Commission decisions. Other automakers dispatched deputy-director-level officials to the meeting, which indicated that its deliberations were not as important to them as they were to Hyundai and Kia.

One more interesting observation in the representation of industries at the first meeting of the Joint Commission is that a representative from LPG association volunteered to participate, and KAMA (Korean Auto Manufacturers Association) did not participate[217].

In terms of the number of the participants and the range of representation of the full range of stakeholders, the Joint Commission seemed to have many people associated with broad interests associated with comprehensive policies for diesel vehicles at the first meeting. However, the more important factor in the representation of interests in consensus building is how well the representatives (participants) could represent the interest of their groups through willingness to participate (or negotiate) and a definite mandate.

In terms of eagerness, (or willingness) to participate and a definite mandate from stakeholder groups, the MOCIE, the MOF, and some industries scored much lower than the MOE and the Alliance. The MOCIE and the MOF did not even accept the concept of

---

[216] Interview with officers from Hyundai Motors on June 9, 2005.

[217] According to Mr. Koh, KAMA was not in the position to represent general automakers, because each automaker had different interest in diesel passenger car manufacturing. Only Hyundai, and Kia could manufacture diesel passenger car at that time, and other automakers would like to check Hyundai and Kia. Thus, KAMA could not make a unified argument representing all automakers. (Interview on April 15, 2005)

participatory decision making from the beginning. The lower scorers had to be dragged into the Joint Commission, and had not done much preparation. While they were in their seats at the meeting, they were not fully participating. In theory, those lower scorers might have sought ways and settings other than the Joint Commission to achieve their interests.

Also, a major environmental group, KFEM, was not participating in the Alliance. KFEM criticized the creation of the Joint Commission and there was no effort made to bring the group into it.

Therefore, it cannot be said that the Joint Commission had a meaningful representation of all relevant interests around diesel passenger cars.

I4: Multiple, clear issues

There must be two or more issues on the table so that parties can maximize their overall interests by trading or bundling issues. If there is less opportunity for trade-offs stakeholders are likely to resort to options other than negotiation.

Five agenda items were put on the table at the first meeting of the Joint Commission: 1) regulations of Diesel RVs; 2) impact of allowing diesel passenger cars on air pollution; 3) emission reduction strategies for general diesel vehicles; 4) role of automakers in reducing emissions from diesel vehicles; and 5) adjustment of energy fuel price and fuel quality.

The first and the second issues were the topic that Hyundai and Kia and other automakers talked about the most and as soon as possible. The July 1, 2002 deadline for implementing the regulation on the classification of diesel RVs was looming. The first

meeting was held on May 24, 2005. The automakers badly needed a final decision on whether the MOE would change the definition of diesel RVs, or postpone the implementation of the regulation so that they could keep manufacturing popular diesel RVs. Also, Hyundai and Kia wanted to know soon when the MOE would lower the emissions standards for new diesel passenger cars and to what level, because that decision might affect their investment and marketing strategies.

On the other hand, the MOE and the Alliance were most interested in changing energy fuel prices (issue 5) and offsetting emissions from diesel RVs and diesel passenger cars by reducing emissions from other large and operating diesel vehicles (issue 3) and how automakers themselves could contribute to reducing emissions (issue 4).

So, there were sufficient multiple and clear issues to make negotiating tradeoffs possible. Furthermore, these trade-offs had to be grounded on calculations, determined through joint fact finding, of additional emissions from diesel RVs and new diesel passenger cars in many scenarios (Issue 2). The problem was how to process each decision item and how to arrange the timing of the discussion: trade-off negotiations could apply to the priority as well as manner of processing agenda items.

I5: Supporting organizations with implementing power

The participation of parties with implementation power can be key to the successful initiation and maintenance of consensus building, because parties must believe that their agreement will be implemented and that their participation will be worthwhile. The most significant variable in the likelihood of successfully implementing agreements appears to

be whether those with the authority to implement the decision support the process (Bingham, 1986; Susskind and Cruikshank, 1987). If the participating authority has options other than consensus building to secure their ends, the process may be at risk.

Discussion of implementation power for environmental policy making in South Korea must be examined in terms of how a decision idea becomes a final decision ready to be implemented. Because the regulation[218] of the classification of vehicle types was an administrative rule, an amendment draft could be made with just the signature of the Minister of Environment. It would not need to be ratified by the National Assembly. The amendment of the classification of vehicle types in 2000 was made through the following process:

1. Amendment proposal prepared by the MOE ('00.4.3)
2. Coordination with the MOCIE, and the MOF ('00.4.3.)
3. Public Notice and Comment ('00.4.24)
4. Review of the Regulation Reform Committee (RRC) ('00.6.2)
5. Application of the review of the Ministry of Legislation ('00.10.23)
6. Approval from the Ministry of Legislation ('00.10.23)
7. Announcement ('00.10.30)

[218] South Korean legal system has three-layer structure. The first level is a statue (Bup-Ryul). It includes abstract and general contents of the Act. For example, the Clean Air Conservation Act is a Bup-Ryul. Based on the Bup-Ryul (statue), regulations can be created. The regulations are called as 'Bup-Ryung,' or 'Shi-Haeng-Ryung.' Environmental regulations are usually Ministerial Enforcement Ordinance, which are made by the MOE. The lowest level of the system is administrative rules (Shi-Haeng-Kui-Chik). These rules specify how to implement regulations in detail. The rules have forms of 'Hun-Ryung (Directive),' 'Yae-Kyu (Rule),' or 'Ko-si (Notification).'

Thus, if the MOE decided to change the classification of vehicle types as Hyundai, and Kia requested, the amendment decision would follow the steps of the process described above. Even if the MOE was responsible for classifying diesel RVs, and the task of administrative rule (Si-Haeng-Kyu-Chick) was at the discretion of the MOE, the decision proposal would have to be coordinated with the MOCIE, and pass the review of the RRC, where the MOCIE could exercise more influence than any other Ministry.

However, the MOCIE did not support the Joint Commission from the beginning. It even strongly opposed it. Thus, while the MOE was willing to support a consensus agreement as a final government decision, ***it lacked the support of the MOCIE, an important stakeholder with the potential to block the implementation of the consensus agreement.***

I6: Financial support for process

Availability of financial resources can help disadvantaged groups participate on an equal footing, hire technical consultants, and trusted facilitators. Asking parties to pay for a facilitator or an outside expert is sometimes one more barrier to participation (McKinney, 1997).

There was no special budget for the operation of the Joint Commission. Even though the MOE offered some working funds to the Alliance, the Alliance declined the offer on the ground that they came to the Commission in order to share the decision power with governments as an equal partner rather than just a consultant. However, any research effort by experts from any associations was financed by the MOE. Other miscellaneous

costs for managing the processes were also covered by the MOE.

The source of the supporting fund should be discussed with all stakeholders, because the neutrality of the source is important to secure neutrality of the outcome, which will be produced by any activity supported by the fund. Without the designated fund at the beginning of the process, it was unclear how to fund joint fact-finding research or experiments to eliminate scientific or technical uncertainty. Such studies were very expensive, beyond the reach of the MOE budget, a potentially problematic situation.

I7: Time pressure and deadline

Time pressure and deadline are sometimes important, because without a deadline, parties may purposefully delay or fail to focus on reaching a settlement. Time pressure deadlines can be helpful in making participants in a consensus building process focus better and use time more effectively. However, overly restrictive deadlines can make it difficult for the parties to have the meaningful and thorough conversation required to make decisions informed by the best science and expertise available.

At the second meeting on May 31, 2002, the deadline for operation of the Joint Commission was set collectively as the end of June 2002. While participants decided that they could extend the deadline as necessary, according to the outcome of the process, administrative schedule regarding the regulation of reclassification of diesel RVs, which would be effective from July 1, 2002, definitely lent time pressure to the proceedings. If Hyundai (KIA) motors and MOCIE were able to change the content of the regulation to meet their interests, it had to be done as soon as possible.

The participants of the Joint Commission had only one month to decide, which allowed them at most four meetings if they decided to meet once a week. Even if the Minister of Environment signed off on the amended regulation of classification of vehicle types at the first meeting, it would take more than one month to be finalized through the administrative process described above. In this case, Hyundai, Kia and the MOCIE tried to focus specifically on the issue of reclassification of vehicle types as soon as possible, while other stakeholders wanted to view the issues as parts of a general and comprehensive picture. ***It cannot be said that deadline and time pressure in this case had entirely beneficial effects on the process.***

Deliberation factors of consensus building process

Once the initiation factors were taken care of, the four deliberation factors in the consensus-building process came into play:

- D1: Setting a ground rule by participants
- D2: Fair management of the process
- D3: Joint Fact-Finding
- D4: Communication between representatives and constituents

Since those process factors were related to the negotiation process, they will be analyzed through reviewing the negotiation process from the first meeting to the fourth meeting of the Joint Commission.

The first meeting (May 24, 2002)

The first meeting was held at Kwachon civic center near the MOE for four hours on May 24, 2002 with 18 members participating. The MOE prepared a handout to all participants to the meeting. The contents of the handout by the MOE included an operational plan for the Joint Commission, a decision agenda, fact-finding schedule, and tasks assigned to each stakeholder (Box 7-2).

Box 7-2. Handout for the first meeting for the Joint Commission

- ***Operating plan***
  - List of Participants
  - Participation of industry representatives will be flexible according to the issues
  - Selection of chair person of the Commission and secretary
  - Meeting on a weekly basis, establish sub-Committee for decision agenda, if necessary

- ***Decision agenda***
  - 1. Course of action for the classification of diesel RVs (due on July 1, 2002).
    - According to the public forum (May 17, 2002) and the public sentiment, ***most people do not think that it will be appropriate to terminate vehicle models, which have been manufactured.***
    - We have to consider the effect of termination on the auto industry, the auto parts industry, and the potential trade dispute with other countries.
    - However, ***the final decision whether to allow the manufacture of diesel RV will depend on the review of the auto industry's emissions reduction plan.***
    - Considering that five diesel RVs will be terminated starting July 1, 2002, ***this issue should be addressed as soon as possible independently from the issue of diesel passenger cars.***
  - 2. Joint Fact-Finding on the effect of allowing diesel passenger cars on air quality
    - ***Scenario analysis of the impact of diesel passenger cars on emissions change (conducted by the MOE)***
  - 3. Measures to reduce emissions from general diesel vehicles
    - ***The MOE will prepare the policy measures*** and present them at the next meeting.
  - 4. Project of the auto industry to fulfill social responsibility and duty.
    - ***The auto industry will prepare and present it later.***
  - 5. Adjustment of fuel price
    - The MOF and the MOCIE will make their proposal. Currently, the joint research project on the issue is being conducted by the MOE and the MOF (May – November, 2002).

From the handout, participants could ascertain the MOE's position on the decision agendas:

Due to the administrative schedule for diesel RVs, let's discuss the issue of diesel RVs first and then talk about the diesel passenger car. The MOE would

allow diesel RVs to be sold continuously. Thus, Hyundai and Kia should prepare their plan to offset emissions generated from their diesel RVs.

For diesel passenger cars, the MOE conducted the scenario analysis of emissions from potential diesel passenger cars and prepared general policy measures for diesel vehicles. Thus, if there is a problem with it, let the MOE know that. For fuel price adjustment, there is research going on now. So, wait for the result of the research.

D1: Setting a ground rule by participants

The importance of setting ground rules is that stakeholders can feel they own the process by setting ground rules *together*. However, even though the MOE emphasized the importance of consensus as a decision rule, *participants did not seriously discuss "ground rules,"* regarding agenda setting, deliberation, and implementation *together.* The MOE just provided the guideline or announced its decision as to how to operate the process. At the first meeting, the group decided to have two chairpersons, one from the MOE and one from the Alliance, to meet once a week, and to create a sub-committee, if necessary. It was decided also that the participation of representatives should be flexible.

However, participants did not discuss what kinds of attitude the participants should have during the process. For example, on the same day as the first meeting of the Joint Commission, the Alliance was operating a street rally in front of the headquarters of Hyundai, raising the issue of urban air pollution and problematic diesel RVs. Asked a question about this negotiation strategy of the Alliance, Mr. Seo, Wang-Jin of the Alliance explained:[219]

"The source of negotiation power for the Alliance during negotiations in the

[219] Interview with Mr. Seo, Wang-Jin on on July 16, 2005.

Joint Commission was the media. In terms of negotiation strategies in the Joint Commission, the Alliance decided to conduct continuous street campaigns and write columns to the media, in order to raise the public awareness on the issue and make the strong will of the Alliance known to the government and industries."

D2: Fair management of the process

Participants appear more satisfied with a negotiated than with a conventional rule-making process because they feel not only that the substantive outcome will be better, but also that the process itself is managed fairly (Freeman and Langbein, 2000). The criteria of fair process may apply from the initiation stage, including agenda setting, ground rule making, and range of representation, to the implementation state. Also, fair negotiation processes should empower all the parties in various ways and constrain the most powerful.

To assess fairness, a researcher should ask participants directly how they felt about the fairness of the process and whether they were satisfied by how it was managed. In response to these questions, every participant in the Joint Commission answered that they were given equal opportunity to be heard and respected and to access information. On the basis of these remarks it may be concluded that ***Mr. Koh from the MOE and the other chairperson from the Alliance facilitated discussion or dialogue fairly inside the negotiation processes.***

However, ***some stakeholders were not satisfied with the agenda setting from the beginning of the Joint Commission***. The opinions of an officer from Hyundai are illustrative:[220]

[220] Interview with officers from Hyundai Motors on June 9, 2005.

"Hyundai is always the weakest party in environmental regulatory decision making. The MOE can just write a policy with a pen. But, sometimes it means that a manufacture line will be closed. That's a huge blow to the industry. Industry has a large stake in negotiations. All economic burdens will be on us not on environmental groups. Thus, industries cannot but be dragged into the negotiation table. The problem is that agenda setting is too one-sided. Agenda is set already through the media by environmental groups and the MOE. Or they just provide the agenda. They (the MOE and the Alliance) held the agenda setting power in tight. The MOE can regulate the auto industry, but the MOE cannot ignore environmental groups, who were so powerful as to affect the Minister's term. Thus, that's a very unbalanced structure for us."

D3: Joint Fact-Finding

Joint fact-finding can ease tension and disputes aroused by the tendency of stakeholders to attack the assumptions or methodologies underlying each other's scientific models.

In the Joint Commission, the major decision agenda was whether to allow continuous manufacture and sales of a few diesel RVs. The necessary scientific or technical information for that decision included how much emissions could be generated by the diesel RVs if they were allowed to be sold continuously, and how much emissions could be offset by Hyundai (Kia) by which plans.

However, the MOE focused on the issue of diesel passenger cars. The MOE presented its own scenario analysis of the impact of diesel passenger cars on urban air quality to the participants in the first meeting, and suggested that a sub-committee be created to verify the analysis, if necessary (Table 7-6).

Table 7-6. Scenario analysis on the impact of diesel passenger car on air quality prepared by the MOE.

Scenario	Impact
Scenario 1: ***EURO-3*** level emission standards for new diesel passenger cars starting ***July 1, 2002*** when the diesel fuel price is ***50%*** of the gasoline price.	• Due to relatively lower diesel fuel price, most demands for gasoline vehicles will be transferred to the demands for diesel passenger cars. • The level of PM_{10} and NOx will be radically increased. • ***Impossible to consider this scenario*** due to the negative impact on air quality.
Scenario 2: ***EURO-3*** level emission standards starting ***January 2004*** and **EURO-4** level emission standards starting ***January 2005*** when the diesel fuel price will be ***66%*** of the gasoline price.	• 60,000 – 390,000 additional diesel passenger cars. • The reduction of the total emissions from automobiles. • The reduction of CO, and HC emissions • Changes of PM_{10} and NOx emissions will depend on for which mode of vehicles (Diesel RVs, LPG RVs, and gasoline vehicles) diesel passenger cars will be substituted. (The emissions of PM10 and NOx could be lowered) • Diesel passenger cars will be substituted for 12-20% of diesel RVs. • The maximum increase of NOx and PM_{10} emissions in this scenario will be by 0.2% and 0.5%, compared to the case of no diesel passenger cars.
Scenario 3 ***EURO-4*** level emission standards starting ***January 2005***, when the diesel fuel price will be ***70%*** of the gasoline price.	• Reduction of NOx and PM10 by more than 50% respectively, compared to the EURO-3 level standards. • No problem in urban air quality management.
Conclusion	***In all scenarios, there will be reduction of the total emissions (CO + HC + PM_{10} + NOx) from automobiles***

However, Professor Dong, Jong-In, nominated by the Alliance as an expert, questioned the validity of the scenario analysis made by the MOE based on data from the automaker. (It was not clear what part of the scenario analysis Professor Dong criticized.) The Alliance, however, had accepted the scenario analysis as the fact on which the next decision would be made. The MOE and the Alliance decided to create a sub-committee to review the scenario analysis prepared by the MOE from the second meeting of the Joint Commission. ***Thus, the Joint Fact finding was conducted by having one stakeholder conduct research and another stakeholder review it and raise the question.***

There was no discussion of how to verify the impact of emissions from diesel RVs on air quality, the very information on which the most imminent decision had to be made.

Deliberation in the first meeting

At the first meeting, the MOE presented its position regarding diesel RVs and diesel passenger cars. The discussion was mostly about the issues related to diesel passenger cars, rather than diesel RVs.

However, for Hyundai (Kia), the issue of diesel RVs was much more important than that of diesel passenger cars. They requested that the final decision on diesel RVs be made in the first meeting due to the urgency of the administrative schedule. The MOE also suggested that it could proceed with the public notice of adjustment of the classification of vehicle types on the assumption that the government would support the proposal from the Joint Commission. At this point, the MOE was focusing more on the issue of diesel

passenger cars than the diesel RVs issue. The MOE wanted to finish the discussion on the diesel RVs issue as soon as possible as did Hyundai (Kia).

However, the Alliance argued that they could not make any decision without discussion on the MOE's measures for general diesel vehicles, the automakers' pledge to reduce emissions from their vehicles, and adjustment of fuel prices. Given the tension between the Alliance and Hyundai (Kia), the MOE announced that it would make a decision on diesel RVs at the second meeting.

The second meeting (May 31, 2002)

A total of 20 participants appeared at the second meeting. Two officials from the MOE and one official from the MOCIE participated from the government side. Three leaders from the Alliance; ten officials from industry, including automakers, oil, gas, and LPG industry; and four experts negotiated for five-and-a-half hours.

D1: Setting a ground rule by participants

As discussed at the first meeting, it was decided that Mr. Koh from the MOE and Mr. Lee, Duk-Seung from the Alliance should co-chair the Joint Commission. Participants also decided that the Joint Commission would operate until the end of June and continue the Commission, if necessary, afterwards. They decided that the outcome of the Joint Commission with the signatures of co-chairs could be released to the public and the media by consensus of all participants.

Deliberation in the second meeting

The first discussion topic at the second meeting was about diesel passenger cars. This time, the MOE presented policy measures to reduce emissions from diesel vehicles. The policies included very comprehensive measures for diesel freight trucks and buses; introduction of zero, or low-emission vehicles; inspection and maintenance for operating vehicles; DPF installment; improvement of diesel fuel quality; and distribution of biodiesel fuels. The MOE had prepared these plans long before to reduce automobile emissions. The implementation of the plan would lead to a 56 percent reduction of emissions from automobiles compared to 1999 emissions. At the presentation, the MOE revealed that it planned to apply the EURO-4 level emission standards to new diesel passenger cars and diesel RVs starting 2005. Hyundai then presented its plan to manufacture and distribute environmentally friendly vehicles.

Participants decided to review the contents of both presentations and prepare a review report for the third meeting. MOE then suggested that they discuss fuel quality and price issues following the conclusions of research projects they had sponsored. However, the Alliance requested that the MOE state its position on the issues as soon as possible.

What is the more important issue now?

Lastly, participants began discussing the issue of diesel RVs. Hyundai (Kia) and the MOCIE strongly felt that a final decision on diesel RVs should be reached in the second meeting due to the coming administrative schedule set on July 1, 2002. The MOE also supported them, offering to make an amendment first and then discuss it later. However, the Alliance declined the MOE's offer and argued that there was no reason to amend original regulations for diesel RVs. The Alliance demanded that the MOE and Hyundai (Kia) submit a detailed plan about how to offset emissions from their diesel RVs in support of their wish to save them from the stringent regulation. Finally, the MOE agreed that it would present an environmental impact assessment of diesel RVs at the third meeting. However, the MOE added that it would decide whether it could proceed with an advance notice of the amendment of regulation for diesel RVs and let the Alliance know its decision by June 3, prior to the third meeting.

The third meeting (June 7, 2002)

The third meeting was held with a total of 19 participants in a room at the MOE for three hours and 40 minutes. All representatives who participated in the second meeting except for one expert appeared at the third meeting.

Now the first discussion agenda became the issue of diesel RVs. The MOE presented its analysis of the emissions impact of diesel RVs to the participants, and announced its

plan to change the regulation of the classification of passenger car types in order to save diesel RVs from being terminated. The MOE explained why it could not change the regulation:

- There will be the increase of emissions at most by 0.16% (NOx) and by 0.12% (PM10), even if these diesel RVs can be continuously manufactured after July 1, 2002.
- Even if these diesel RVs are no longer available after July 1, 2002, consumers will buy other diesel RVs rather than gasoline or LPG vehicles given the low diesel fuel price.
- If diesel RVs are terminated after July 1, 2002, there will be a trade war, economic loss for automakers, auto parts industries, and even owners of these diesel RVs.
- There is general public opinion against the termination of diesel RVs.

The MOE supported the position of automakers and the MOCE, but added the precondition that Hyundai and Kia should compensate for the emissions generated by the continuous sales of diesel RVs by reducing emissions from their other vehicles.

D3: Joint Fact-Finding

At this meeting, the MOE circulated a handout on the scenario analysis of emissions change associated with diesel RVs (Box 7-3). The MOE conducted the analysis with data from Hyundai and Kia. In its calculation, there were very important assumptions on how consumers would react to the termination of these three diesel RVs. In the worst case scenario, the assumption was that all consumers who planned to buy these diesel RVs, would buy LPG RVs. In that case, Hyundai and Kia would have to take action to prevent the emission of more than 1,483 tons of NOx and 155.0 tons of PM_{10}. In the second scenario of probable case scenario, Hyundai (Kia) would have to prevent the emission of

more than 539.4 tons of NOx and 73.7 tons of PM_{10}. For Hyundai and Kia, the second scenario was better. However, the Alliance argued that the first scenario should be taken. Hyundai argued that the first scenario was not a useful measure, in that consumers would buy another diesel RV, given the low cost of diesel RVs.

The first scenario was eventually accepted, and Hyundai (Kia) agreed even though they were not satisfied.[221] For them, the first option was within the zone of agreement. They agreed in order to finalize the diesel RVs issue as soon as possible.

Box 7-3. Scenario analysis of emissions change with diesel RVs

Application period for calculation: From July 1, 2002 to December 31, 2003.
(After 2004, new stringent emission standards will apply to these diesel RVs)

Scenario 1: Worst case

All consumers, who planned to buy these diesel RVs, will buy LPG RVs.

Condition	Total (tons)	CO	HC	NOx	PM_{10}
Business as Usual (A)	1,982.1	45.5	45.5	1,736.1	155.0
Terminated (B)	2,882.2	2,442.5	186.9	252.8	-
Change (B-A)	900.1 (+)	2,397.0 (+)	141.4 (+)	***1,483 (-)***	***155.0 (-)***

Scenario 2: Most probable case

SanteFe: 30% → LPG RVs; 70% → other diesel RVs
Trazet (7 passengers): 100% → diesel Trazet (9 passengers)
Carens: 50% → LPG RVs; 50% → gasoline vehicles

Condition	Total (tons)	CO	HC	NOx	PM_{10}
Business as Usual (A)	1,982.1	45.5	45.5	1,736.1	155.0
Terminated (B)	2,523.5	1,126.8	118.7	1,196.7	81.3
Change (B-A)	541.4 (+)	1,081.3 (+)	73.2 (+)	***539.4 (-)***	***73.7 (-)***

[221] Interview with officers from Hyundai Motors on June 9, 2005.

Almost finished, but...

After the Alliance reviewed the scenario analysis and heard the offset plan from Hyundai (Kia), they agreed that the SanteFe could be manufactured continuously. However, they argued that the Carens (Kia) should still be terminated after July 1, 2002, on the ground that Carens diesel RVs were almost like diesel passenger cars and manufacture of Carens could be seen as a sign that diesel passenger cars would be allowed.

The MOCIE and Hyundai (Kia) strongly opposed the request from the Alliance. They maintained that the Carens was the cleanest of the three diesel RVs and there would be a very negative impact on the national economy if it were terminated.

The Alliance counter-offered that if Kia was willing to install DPF on the Carens to satisfy the EURO-3 level emission standards, it could be manufactured until December 31, 2002. They deferred to Hyundai (Kia) for a final decision on diesel RVs. They decided that if Hyundai (Kia) accepted the Alliance's suggestion, it would agree and the MOE could announce the advance notice for the regulatory change soon.

Consensus Agreement!

On June 24, 2002, a document from the MOE was released to the media. The so-called "Consensus agreement" was to:

1. Amend the definitions of passenger car type-1 and passenger car type-2, according to the EU's classification

Classification	From	To
Passenger car type-1	More than 800 cc displacement Less than 3.5 tons weight or, ***vans with the width of less than 2,000 mm and the height of at less than 1,800 mm, designed to carry less than 8 passengers***	More than 800 cc displacement, Less than 2.5 tons weight, Carry less than 8 passengers
Passenger car type-2	Multi-purpose passenger car with appropriate ***frame structure*** for off-road operation. It should have a four-wheel drive, or LSD (Limited Ship Differential) with displacement of more than 800 cc, with weight of less than 3.5 tons	Multi-purpose passenger car for off-road operation with appropriate ***frame structure, or*** a four-wheel drive, ***or*** LSD (Limited Ship Differential) with displacement of more than 800 cc. with weight of less than 2.5 tons

2. According to the amendment above, three models of diesel RVs, such as SantaFe (Hyundai), Free Lander (Land Rover), and Grand Voyager (Chrysler) can be manufactured, or imported. However, the amendment is contingent upon the automaker's pledge, or plans to offset more than the amount of emissions, which are expected to increase due to the sales of those diesel RVs, by reducing emissions from other vehicles manufactured by Hyundai. (The Joint Commission agreed to exempt Land Rover and Chrysler from the duty of offsetting emissions, on the ground that the emissions from those diesel RVs account for only 0.5% of the total emissions from the five diesel RVs (Carens, SanteFe, Trazet, Land Rover, and Grand Voyager). The number of those imported diesel RVs is very small.)

- Emissions expected to increase
  NOx: 1,070 tons
  PM_{10}: 117 tons
  (Assumptions: 1) SanteFe, and two foreign diesel RVs will be sold from July 1, 2002 to Dember 31, 2003. Carens will be sold only for 6 months until the end of 2002.
  2) All consumers, who planned to buy these diesel RVs, will buy LPG RVs.

- Emission reductions proposed by Hyundai (Kia)
  NOx: 1,509 tons
  PM_{10}: 194 tons

- Emission reduction plans by Hyundai (Kia)
  - Terminate old model diesel RVs, such as 'Sportage' (Kia), 'Retona' (Kia), and 'Galloper' (Hyundai), earlier than planned.
  - Change the engines of five ton-super large trucks with much cleaner engines earlier than planned.
  - Change the engines of 'Starex (Van)' with much cleaner engines.
  - Develop 'Sorento' gasoline RVs and sell them from September, 2002 to substitute Sorento diesel RVs.
  - Conduct free emissions tests for a total of 250,000 operating diesel vehicles, and free maintenance for violating vehicles (approximately 16% of the inspected vehicles).

3. Carens and Trazet will be terminated starting July 1, 2002. But, if Carens satify the EURO-3 level emission standards of NOx and PM10, Carens can be sold until the end of 2002. Regarding the question of continuous manufacture and sale of Carens, the Joint Commission will discuss the issue of diesel passenger cars.

4. Adjustment of transportation fuel prices is a precondition to allow diesel passenger cars. A private-public commission will have to discuss the issue.

5. To implement this consensus agreement, Hyundai (Kia) should submit the implementation plan to the MOE. NGOs, experts, and the MOE will monitor together the implementation. If there is not enough implementation, the government will take necessary steps.

6. The Joint Commission will contract a MOU of the consensus agreement. Immediately, the MOE will change the regulations as above.

Who signed the Consensus agreement?

Right after the MOE announced to the press on June 24, 2002 that it would proceed to solve the issue of diesel RVs according to the consensus agreement from the Joint Commission, all major newspapers in South Korea delivered the content of the so-called "consensus agreement document" under headlines such as "Trazet and Carens will be terminated!"

However, by the next day, disgruntled stakeholder opinions began to appear. These opinions, in summary, included:

Hyundai (Kia): "W*hile we will follow the government policy, but* ***we did not agree with the announced consensus agreement by the MOE. We did not sign the agreement. Only the MOE and the Alliance signed.*** *While the MOE argues that 'Galloper' (old model of diesel RV) should be terminated soon, we can reduce emissions by another methods, rather than by terminating Gallopers. We will keep manufacturing Galloper*[222] *...*

2,000, or 3,000 Carens are being sold in a month. If they are terminated, USD 20 million, or 30 million a month will be lost[223] *...*

(Regarding uncertainty on the emission standards for new diesel passenger cars), The Auto industry is not like fashion businesses. We need to look ahead at least 3-5 years. We cannot even decide the specification of new vehicles due to uncertainty of government decision[224] *...*

Basically, we are very upset about the decision. The MOE is always seeing how the wind blows from the environmental groups. That's a typical wait-and-see policy, to study environmental groups' faces to see if they are angry...[225]

KFEM: "***We did not participate in the Joint Commission,*** *but* ***we cannot agree with the rough-and-ready consensus agreement. There was no signature of Hyundai and Kia on the consensus proposal.*** *The MOE already changed the regulations according to the consensus agreement. However, if the consensus agreement proposal does not have the signature of Hyundai,* ***there is no way to ensure that Hyudai will implement their emission offsetting plan. The consensus agreement would roll back urban air pollution policy aimed at reducing irrationally increasing diesel RVs, because it would encourage more diesel RVs with weight of less than 2.5 tons.*** *SantaFe is polluting more than Trazet, because it weighs more and has less engine efficiency than Trazet. But, SantaFe was saved instead of Trazet. The auto industry did not get hurt that much by the consensus agreement, because Trazet was being sold in small numbers, Carens can be exported to Europe. Also, Hyundai (Kia) already planned to terminate old diesel RVs, such as Sportage. Thus,* ***while the auto industies secured their interests by this consensus agreement, environmental groups only got a promise to keep***

[222] Naiwoi Kyungje Shinmoon (2002.6.25). 'No termination of Galloper.'
[223] Tae-Han Maeil (2002.6.25).
[224] Kyung-Hyang Shinmoon (2002.6.26). 'Confusion due to half-cooked decision.'
[225] Seoul Kyungje Shinmoon (2002.6.25). 'upset auto industry for enormous loss of sales.'

talking on the issues...

The MOE, already captured by the auto industry ignored public health problems caused by urban air pollution. SanteFe is being sold at the rate of the maximum 60,000 a year. It is wrong to save SanteFe...

There should be a new commission, where all environmental NGOs, and relevant experts can participate. *More transparent, more responsible discussion is necessary. The consensus agreement should have included a content or policy to curb the increase of diesel RVs fundamentally*[226] *"*

The Alliance: "***We don't understand why Hyundai denied their agreement on Galloper's termination.*** *The Alliance strongly recommends to the MOE that* ***the MOE should take sanctions against Hyundai if Hyundai fail to fulfill the agreement***[227] ...

(Regarding the agreement document without the signature of Hyundai), We agreed to the consensus proposal, believing that Hyundai also agreed to that. If Hyundai did not agree to that, ***it is not consensus. We should do it again***[228]. ***Our interest is in monitoring how Hyundai would keep its promise to the consensus proposal. The bottom line to decide whether Hyundai's is credible is the issue of Galloper***[229]*."*

The MOE: "***Hyundai also agreed to the consensus proposal in the Joint Commission.*** *Thus,* ***we will take sanctions against Hyundai in case Hyundai does not adhere to the agreement***[230] *... The issue of Carens diesel RV is not solved yet. So, Hyundai and Kia cannot but observe the agreement.* ***We will make sure that Hyundai will sign the MOU of the consensus agreement***[231]*."*

General auto consumers: "*The government and industry are saying that they are positive in the sales of Carens next year. But, environmental groups keep saying that Carens will be terminated in the next year.* ***We are very confused about making a decision whether to buy Carens or not.***

What about other diesel RVs with mechanical diesel engines like Musso, Korando by Ssangyong? *Why will only Sportage*

---

[226] Public statement by KFEM on the consensus agreement (2002.7.4).
[227] Chosun Ilbo (2002.6.26).
[228] Hankyerhe Shinmoon (2002.6.26). 'Hyundai did not give up 'Galloper'.'
[229] Public statement by the Alliance (2002.6.28).
[230] Chosun Ilbo (2002.6.26).
[231] Hankyerhe Shinmoon (2002.6.26).

will be terminated?[232]*."*

D4: Communication between representatives and constituents

If representatives at the negotiation table are not adequately representing the interests of their constituencies or communicating with them, the constituencies can challenge any agreement during or after the negotiation.

The Alliance was participating in the Joint Commission as the representative of the general public. However, even if it were fighting with industry to secure the public health associated with urban air pollution and included NGOs related to consumer issues, it is questionable whether the Alliance could represent the entire public on the issues.

However, the Alliance held their own frequent strategy meetings before and after each session of the Joint Commission to coordinate their opinions. There was no communication problem within the Alliance and between the representatives and the members of the Alliance. However, another influential environmental group, KFEM, was not involved in their communications, which caused confusion among environmental groups later.

Hyundai representatives did not have a complete mandate from the CEO to negotiate in the Joint Commission. They never claimed authority to speak for the company; only the CEO of Hyundai Motors had the centered authority to make decisions. The communication problem between Hyundai negotiators and the CEO of Hyundai became evident in the problem of the termination of the "Galloper." The high-level decision maker at Hyundai did not want to terminate this model, but the consensus agreement included a stipulation that

[232] Kyung-Hyang Shinmoon (2002.6.26). 'Confusion due to half-cooked decision.'

Galloper would be terminated earlier than the company planned.

Deepened dispute

Hyundai was very upset when the MOE revealed the agreement to the media without consulting their opinion. While the ground rules of the Joint Commission allowed any decision to be released to the press with only the signatures of the MOE and the Alliance, Hyundai was embarrassed by the extensive media coverage. The information about "Galloper's" termination was very critical in affecting consumer choice. Hyundai had been very careful in handling this kind of information[233].

On July 8, 2002, two weeks following release of the consensus agreement in the media, Hyundai fired Mr. Jaegal, an executive director who worked as the negotiation representative for Hyundai in the Joint Commission and appointed another executive officer, Mr. Kim, Duk-Mo as the new negotiator for Hyundai. The new negotiator Mr. Kim maintained that[234]

> *"Hyundai did not agree to the consensus agreement. The agreement was made mostly by the MOE and the Alliance. Hyundai will keep manufacturing Galloper."*

The Alliance also took action against Hyundai's stand. They organized a protest rally, calling for social responsibility from industries in front of the headquarters of Hyundai motor company on July 16, 2002.

---

[233] From the interview with officers from Hyundai Motors on June 9, 2002.
[234] OhMynews (2002.7.8).

The fourth meeting and another source of dispute

In the midst of the confusion and agitation, the MOE, the Alliance, and Hyundai (Kia) kept in touch outside the Joint Commission to prepare the MOU (Memorandum of Understanding) of the consensus agreement to secure the implementation of Hyundai's emissions-offsetting plan. The three parties were pursuing a type of voluntary agreement to solve the issue of diesel RVs.

When the deal was almost finished, the MOCIE sent a memorandum to the MOE on July 15, 2002, requesting that any agreement should be between the MOE and Hyundai only. The MOCIE had opposed the participation of environmental groups in the decision making process from the beginning and intended to prevent environmental groups from directly influencing the economic activities of industries. According to the MOCIE, two contracts could be made among three parties: One between the MOE and Hyundai (Kia) and the other between the MOE and the Alliance.

One day before the fourth meeting, which was supposed to be held on July 24, 2002, Hyundai (Kia) finally submitted to the MOE the MOU that the two CEOs signed. There seemed to be no roadblock, at least for the issue of diesel RVs.

At the fourth meeting of the Joint Commission on July 24, 2002, 13 members participated for two hours (Table 7-7).

Table 7-7. Participants at the fourth meeting of the Joint Commission

Affiliation	Association	Title	Name	Remark
Government	MOE	Director of the air bureau	Yoon-Hwa Koh	
		Director of the transportation pollution department	Moon-Soo Ahn	Government secretary
	MOCIE	Secretary at the transportation industry department	Sang-Ryong Cho	
NGO	CMEJ	First Secretary	Wang-Jin Seo	
	Green Transport	First Secretary	Man-Ki Min	
Automaker	Hyundai	Executive Director	Duk-Mo Kim	
	Kia	Vice President	Chi-Wang In	
	Ssangyong	Vice President	Soo-Won Lee	
	Renault Samsung	Vice President	Won-Gu Jung	
Oil Industry	LG	Executive Director	Hyung-Jong Hong	
Gas Industy	LPG association	Executive Director	--	
	LG	Executive Director	Ho-Yeon Kang	
Expert	Seoul City Univ.	Professor	Jong-In Dong	Nominated by NGOs

The main agenda at the fourth meeting was to decide the way in which the parties would enter into the consensus agreement. There was a winning coalition of the MOE, the Alliance, and other stakeholders for the tripartite agreement among the MOE, the Alliance, Hyundai (Kia). Only the MOCIE fiercely argued against the tripartite agreement. Consider how each stakeholder addressed this issue at the fourth meeting:[235]

The MOCIE: *"There is no precedent of tripartite agreement in which NGOs participated as a signatory. We certainly oppose any attempt to include NGOs in the agreement. We are definitely concerned about the ripple effect of this type of agreement on other industry sectors in the future."*

The MOE: *"There are several domestic and foreign cases of tripartite agreements, where NGOs participated as committee members and signed the agreements. Our consulted lawyer also said there was no legal problem in the tripartite agreement. Unless there is problem in the content of the agreement, it is appropriate that the Alliance should be a member of the agreement as a*

[235] Meeting minutes of the fourth meeting (MOE)

stakeholder."

The Alliance: *"Definitely, the Alliance should be a member of the agreement. If not, we should not have participated in the Joint Commission."*

Hyundai (Kia): *"No comment."*

LPG association: *"We don't understand why the format of agreement should be an issue unless there is a problem in the content of the agreement."*

Althougth the MOCIE renewed its argument at the fourth meeting, it had no allies. All other participants decided to finalize a version of the signed MOU of the tripartite agreement in early August and to hold the fifth meeting of the Joint Commission on August 9, 2002.

All participants except the MOCIE agreed it was high time to shift their focus from diesel RVs to diesel passenger cars. However, the MOE and the Alliance wanted other participants to look at the issue in a more comprehensive way, including general diesel vehicles, and energy fuel prices, rather than to focus on diesel passenger cars only. The Alliance strategically moved first by organizing a street rally on July 26, 2002 to argue for more comprehensive government control of air pollution.

Intervention of the Regulation Reform Committee (RRC) [236]

Almost self-excluded from the Joint Commission, the MOCIE with Hyundai (Kia) called in the RRC's help. One of the two chairpersons was the Minister of Commerce, Industry and Energy (MOCIE) himself. For the MOCIE, the best alternative to participating in the Joint Commission was to make the RRC intervene in the process at a later stage. On August 8, 2002, the MOCIE requested that the RRC review the tripartite agreement on diesel RVs, asserting that the MOCIE could agree to hear environmental groups' opinions during the public decision-making process, but could not accept them as signatories of the final decisions.[237] For the MOE, MOCIE's move was totally unexpected.

Set back by the MOCIE's sudden action, the Alliance responded by organizing a street campaign in which they marched wearing gas masks and holding picket signs, and issued a public statement to urge the signing of the agreement among the three parties. Hyundai and Kia sent the MOU to the MOE, but the agreement had not yet been signed by all three parties together.

While Hyundai (Kia) even cancelled their request for the RRC's review of the

---

[236] This Committee was established as presidential advisory organization in 1998, when South Korea went through economic crisis. Therefore, the primary purpose of the Committee is to support and encourage atrophied commerce and industries by reforming irrational regulations, which prevent industries from doing business efficiently. The Committee seems very strong in that every regulatory effort, such as creating or changing regulations, by any governmental agency should go through final review of this Committee. Its decisions such as repeal or readjustment of regulation have legal power. There are 20 committee members. Among them, six members are from government side. But most of them work for the economic Ministries. Other civilian members are people who have affiliations with industries.

[237] Mr. Hong, Ki-Doo, a director of Capital Goods Industries Bureau, commented on the tripartite consensus agreement to a newspaper reporter, "*Should the government need an approval from NGOs in every issue of public decision making? This type of decisionmaking is not a small issue. It can make a big ripple effect on other public decision making. Especially for industry sector, that can play as a new kind of regulation.*"

agreement on August 19, 2002, they were yet ready to sign. The MOCIE was pressing Hyundai and Kia not to sign it at all.

A director from Hyundai remembered the situation at that time:[238]

> *"We are willing to reduce air pollution emissions by terminating old models of diesel RVs. But, the MOCIE is requesting us not to sign on it. We are caught between the MOE and the MOCIE."*

In the meantime, the Alliance pressed Hyundai and Kia by issuing a public statement on August 14, 2002 that the Alliance would not acknowledge the agreement and would go back to the original position they held prior to the Joint Commission unless Hyundai and Kia signed by the weekend.

After all the turmoil, the Joint Commission finally announced the consensus agreement which the MOE, Hyundai (KIA) and the Alliance negotiated over three months on August 19, 2002. At this time, even the MOCIE signed as a member of the government. They agreed that 1) high polluting old diesel multi-purpose vehicles and buses should no longer be manufactured, 2) automakers should gradually expand installation of cleaner engines, and 3) they would return soon to the issue of whether to allow diesel private vehicles or not.

By the terms of this agreement, several multi-purpose diesel vehicles including "Sportage," "Retona," "Galloper," and "Trazet XG (7 passengers)" would no longer be manufactured, while KIA's "Carens II" would be manufactured until the end of 2002, and Hyundai's "SanteFe" would be manufactured continuously.

However, on September 3, 2002, the RRC issued a correction to the consensus

---

[238] Interview with officers from Hyundai Motors on June 9, 2002.

agreement, thus invalidating it as a regulation. The Committee declared that government could not intensify regulations by making separate agreements with industries or civic organizations, and that if additional regulations were needed, existing law or regulation should be amended.

The demise of the Joint Commission

Frustrated by the RRC's decision, the Alliance made a public statement criticizing the RRC and decided to secede from the Joint Commission on September 17, 2002. The Alliance's withdrawal from the Joint Commission meant the end of the consensus-building process. The MOE also criticized the RRC's decision and requested another authoritative interpretation of the agreement, arguing that because the agreement was voluntary rather than a regulation the RRC could not overrule the agreement. Furthermore, the MOE threatened to re-impose the previous harsh regulations on diesel RVs if the consensus agreement was not acknowledged.

But, save the agreement!

In the meantime, the MOE had two options for responding to the RRC's decision. First, it could just abandon the voluntary agreement as did the Alliance, and maintain its original plan to terminate some diesel RV models as they intended. Second, the MOE could just adjust to the RRC's correction in order to keep the agreement alive. Considering the

time and energy that the MOE had invested in building consensus on the content of the agreement which they approved, revoking the agreement just for some controversial phrases was not a good option for the MOE. Moreover, Hyundai and Kia agreed to comply with the agreement. Thus, the MOE revisited the agreement, amended a controversial phrase and submitted it to the RRC for re-interpretation on October 2, 2002. The amendment changed the content of article 10 of the agreement, which sounded legally compulsory. It changed the language from "the MOE ***will revoke*** automakers' manufacturing certification in case of their nonfulfillment of the agreement (Article 10 of the agreement)" to the less binding construction "the MOE ***can take steps*** such as termination of manufacturing ***by amending regulations*** in case of ..." The MOE also changed the name of the agreement to "the improved planning" to encourage RRC approval. To the MOE, the slight amendment was no impediment to achieving its more important goals. The MOE emphasized that the amendment was only a cosmetic change, and that the new phrase would not change the penalty level from that of the original version. Finally, on October 28, 2002, the RRC approved the amended agreement in the name of "the improved planning as non-threatening to the basic law for administrative regulation." It seemed that the dispute around diesel RVs was resolved to the satisfaction of the MOE, and Hyundai (Kia). The MOE wanted to move the discussion toward the issue of diesel passenger cars.

Into the conventional adversarial politics stream

After the Alliance withdrew from the Joint Commission on September, 17, 2002, its

representatives spent most of their energy in the conventional politics stream by resorting to adversarial tactics, such as issuing a public statement to the media,[239] holding public rallies, paying protest visits to government offices or officers, and submitting petitions to the government[240] (Table 7-8). The Alliance started to argue that the voluntary agreement was now invalid, and that the MOE should stick to the original plan to terminate diesel RVs, according to the new emission standards for diesel passenger cars, starting July 1, 2002.

Table 7-8. Activities of the Alliance after their withdrawal from the Joint Commission (2002.9.17 – 2002.12.26)

Date	**Activities**	**Event**
9.17	Protesting rally against the RRC's decision	
10.2	Petitioning to the MOE that it should stick to the original plan to terminate	The MOE submitted revised agreement to the RRC.
10.16	Petitioning the inspection of the RRC to the Board of Audit and Inspection (MAI) and reporting the corruption[241] and abusing authority of the RRC chair and Minister of the MOCIE to the Korea Independent Commission Against Corruption (KICAC) Paying a protest visit to the RRC	
10.17	Issuing a public statement in order to criticize the RRC's blockage for the Alliance's request to meet the chairperson of the RRC	
10.29	Issuing a public statement that the Alliance disqualified the revised agreement which the RRC approved	(10.28) The RRC approved the revised agreement.
11.13	Issuing a public statement that the Alliance would oppose the sale of diesel passenger cars in domestic	(11.11) The MOE announced that it would allow the sale of

[239] There are several progressive newspapers, which favor NGOs's points. Those newspaper include Hankyerhe Shinmoon, and OhMynews.

[240] There is idiosyncratic cultural feature of South Korean in solving controversial problem. While, in the US, people are likely to resort to lawsuit to solve a dispute, South Korean are more like to meet people who are influential to solve the dispute in person. (See Snyder (1999)). Snyder, S. (1999). Patterns of Negotiation in a South Korean Cultural Context. *Asian Survey*, Vol. 39, No. 3: 394-417.

[241] Corruption means the act of any public official's seeking gains for himself/herself or for any third party by abusing his/her position or authority or violating Acts and subordinate statues in connection with his/her duties.

	market	diesel passenger cars by lowering emission standards.
11.19	Protesting rally against diesel passenger cars	(11.26) The MOE changed its decision of allowing diesel passenger cars.
12.13	Issuing a public statement to criticize the lobby of Hyundai and Kia	(12.7) KAMA requested the MOE and the MOCIE to allow Hyundai and Kia to keep manufacturing Carens diesel RV[242].
12.26	Issuing a public statement to request the termination of Carens	

The Joint Commission was established in an effort to solve multiple controversial issues associated with diesel vehicles on May 18, 2002. Exactly four months later, on September 17, 2002, the Joint Commission was terminated when the Alliance withdrew from the Commission and returned to the conventional adversarial politics stream. Although the Joint Commission did not end well and the Alliance did not acknowledge the consensus agreement at the end, the process did produce a signed consensus agreement, by which Hyundai and Kia tried to fulfill the agreement in order to save SantaFe and Carens.

However, there still remained many issues to be resolved, such as the issue of the manufacture of "Carens" after January 1, 2003, and diesel passenger cars. The relationships among stakeholders became worse than they had been before the Joint Commission. The level of trust among stakeholders went down. For example, the MOCIE requested the RRC to review the consensus agreement, which it had signed. The Alliance suspected that the MOCIE had participated in the Joint Commission in order to block the voluntary agreement from the beginning.

[242] Other automakers, such as GM-Daewoo, Renault-Samsung, and Ssangyong, criticized KAMA's request to the MOE and the MOCIE, on the ground that KAMA did not consult them and only represented Hyundai and Kia's interests in its request.

Stakeholders did not meet together subsequent to the demise of the Joint Commission, but acted independently to promote their interests. Without any discussion on the issue of "Carens" the MOE announced that it would terminate the "Carens" diesel RV starting January 1, 2003.

Chapter Eight

The Environment Commission (Round #2)

The previous chapter included an analysis of how the Joint Commission was initiated as a consensus-building stream and an assessment of the initiation and deliberation factors of consensus-building theory and practices as they functioned in the Joint Commission. Coupling those factors with the strategic moves of policy entrepreneurs demonstrated why the Joint Commission failed to resolve the dispute, and even exacerbated it.

This chapter also uses that analytic framework first to delve into how the Environment Commission came about, and how consensus building among stakeholders was approached. The initiation and deliberation factors in consensus-building theory for this second effort are discussed. The analysis explores how conventional multi-streams affected the consensus-building factors and how those factors affected the negotiation process among participants to produce a consensus-building process. Finally, the chapter outlines the results of the Joint Commission effort. First, it is important to describe the situation prior to the establishment of the Environment Commission.

Distrust, Dispute, and Delay

Since the Alliance withdrew from the Joint Commission, its members played actively in the conventional politics stream. Even though Hyundai (Kia) were implementing their plan according to the consensus agreement, the anger of the Alliance could not be eased.

The Alliance contended that they could not trust the auto industry and the MOCIE anymore. A member of the Alliance asserted that[243]:

> *"The MOCIE played a hypocrite by signing[244] on the consensus agreement, and taking it to the RRC to repeal it. It's like slapping on the cheek while shaking hands. How can we face them with a smiling face? From the failure of the Joint Commission, we are going to make the case that authoritative bureaucrats cannot solve anything if they ignore a consensus with the public."*

Mr. Seo, Wang-Jin claimed that the MOCIE and Hyundai (Kia) had not participated sincerely from the beginning of the Joint Commission and that they subverted the content of the agreement by utilizing the RRC's decision.[245] The Alliance did not trust the MOE either. The Alliance made tough compromises in order to reach consensus, only to have the agreement changed. For them, there was no basis of trust on which to build consensus.

Other than the Joint Commission there was no forum or mechanism in which to discuss the issues. The MOE had only two options. One was to persuade the Alliance to come back to the Joint Commission. The other was to make decisions unilaterally without consulting the Alliance. The MOE tried to persuade the Alliance and the MOCIE to make things better.[246]

Hyundai (Kia), wanting to continue manufacturing Carens diesel RVs for the next year, was getting nervous[247] as time was passing by without any comment on the issue

---

[243] Hankyerhe Shinmoon (2002.12.19). 'Diesel vehicle controversy and the spirit of consensus.'
[244] An official from the MOCIE explained that the MOCIE signed on the agreement after the MOE sent to the MOCIE a memorandum that the MOE would take necessary steps, including changing the content of the agreement, if the RRC would make a final decision on the agreement. (Yonhap News (2002.8.19)).
[245] Hankyerhe Shinmoon (2002.12.25). 'Reasons to stop the sales of Carens in South Korea.'
[246] Mr. Park, Cheon-Kyu, a director of transportation pollution department at the MOE, mentioned that the MOE had a plan and only had to persuade the Alliance and the MOCIE. (Hankook Kyungje (2002.11.12)).
[247] Hankyerhe Shinmoon (2002.12.19), 'Diesel vehicle controversy and the spirit of consensus.' Hankook Kyungje (2002.11.11). 'Nervous auto industries at the risk of the termination of Carens diesel.'

from the MOE. If the MOE stuck to the consensus agreement, Carens diesel RVs would be terminated starting January 1, 2003. Hyundai (Kia) could only lobby government agencies and politicians to solve this issue and plead their case in the media, which was friendly to the industrial sector. The auto industry and the MOCIE warned the MOE that the high emission standards for new diesel passenger cars could lead to a trade war.[248] They also accused the MOE of being subservient to environmental groups and of refusing to take action while waiting for the coming presidential election.[249]

Another round of dispute on diesel passenger cars

If the Joint Commission had been successful in handling the diesel RVs issue as planned, consecutive meetings could have been held to discuss the issue of diesel passenger cars in August and September. The Joint Commission could have discussed the issue of Carens diesel RVs at that time. According to the consensus agreement, the manufacture of Carens diesel RVs for the year 2003 hinged on the decision of the Joint Commission on emission standards for new diesel passenger cars.

The MOE, rejected by the Alliance and warned by the MOCIE of a potential trade war, responded by proclaiming on November 12, 2002 that it would allow the sales of diesel passenger cars with lower emission standards in the domestic market in 2004 or 2005. In practice, allowing diesel passenger cars with cleaner technology was not a problem for

[248] Hankook Kyungje (2002.11.12).
[249] Hankyerhe Shinmoon (2002.12.19). 'Diesel vehicle controversy and the spirit of consensus.'

the MOE. What mattered was whether other benefits, such as lowered diesel fuel price, could be obtained in return for allowing diesel passenger cars.

The Alliance immediately confronted the MOE's announcement with a public statement (November 13, 2002) and a mass rally (November 19, 2002). Consider the rationales of the Alliance for strong opposition to diesel passenger cars:[250]

- *Environmental policy in South Korea has been swayed by a few Cheobols (Large conglomerates). Public health had been ignored by the government captured by large industries. Also, in this case, proposed policies on diesel passenger cars are only for Hyundai and Kia. It is unfair for other automakers.*

- *Although new diesel passenger cars are better in terms of CO_2 emissions, what matters the most in South Korea is the issue of PM_{10} and NOx.*

- *Given serious air pollution in urban areas, it is nonsense just to allow diesel passenger cars without counter-measures to address the problem of large diesel vehicles, diesel RVs, and high sulfur-content diesel and low diesel fuel prices. Especially, diesel fuel prices should be at least 85% of the gasoline price and the sulfur content of the diesel should be lowered from 430 ppm to 15 ppm.*

Considering these arguments, the Alliance and the MOE positions appear to have had much in common; each sought stricter control over diesel vehicles in return for diesel passenger cars. However, they were talking through the media individually, not in a forum together.

Two weeks following the MOE's announcement to allow diesel passenger cars, the Ministry announced on November 26, 2002 that it would postpone the decision to allow the sales of diesel passenger cars in South Korea by lowering the emissions standards for new

[250] OhMyNews (2002.11.18). Column by Mr. Seo, Wang-Jin from the Alliance.

diesel passenger cars, due to the very different views among the industry, academics, the MOCIE, the MOE, and environmental groups. Mr. Koh at the MOE declared that the Ministry would not change regulations without the consent of the Joint Commission.[251] That announcement meant that Carens diesel RV production would have to be terminated at the end of 2002.

Auto industries make a move

On December 5, 2002, KAMA (Korean Auto Manufacturers Association) officially petitioned the MOCIE and the MOE, requesting that the MOE allow the sale of diesel passenger cars in South Korea. Its rationale was that the domestic market was necessary to achieve economy of scale for auto industries, which were exporting diesel passenger cars to the European market. However, other automakers strongly contended that the KAMA's petition was groundless, because KAMA did not consult them and represented only Hyundai (Kia)'s interests in the petition. With different levels of technical development of diesel engines, auto industries had different interests in the emission standards and introductory timing (Table 8-1).

[251] Yon-Hap News (2002.12.17).

Table 8-1. The interests of auto industries on emission standards on new diesel passenger cars

Automaker	Emission standards & introductory time	Rationale
Hyundai (Kia)	EURO-3 in 2004 EURO-4 in 2005	To comply with CO_2 convention of the EU; To effect the economy of scale for more export; To develop clean technology of diesel vehecles.
Renault Samsung	EURO-4 in 2005	To compete fairly with Hyundai and Kia (If EURO-3 in 2004, Hyundai and Kia will dominate the market)
GM Daewoo, and Ssangyong	EURO-4 in 2006	To prevent air pollution (Given lower diesel fuel prices, diesel passenger cars will increase rapidly); To compete fairly with Hyundai and Kia (If EURO-3 in 2004 or 2005, Hyundai and Kia will dominiate the market)

Another announcement from the government

As the dispute deepened, frustration mounted in several sectors. Industries needed a consistent government policy on which to base their business strategies. Consumers also needed a consistent policy on which to base their decisions to buy new cars. Finally, the Ministers of the MOCIE, MOF, MOCT, and MOE got together[252] to clarify the issue on December 26, 2002. The Ministerial meeting was the last one of the departing administration, as the new administration of Roh, Moo-Hyun's was due to begin on February 25, 2002.

[252] In public decision-making process in South Korea, there is a Ministerial meeting for economic policies, where the Ministers of the MOF, the MOCIE, the MOCT, and the MOE participate to discuss government decisions associated with economic policies. Their decisions are not binding as the final government decision, but suggest the course of actions to follow in terms of certain policies.

In the Ministerial meeting, the Ministers made a final decision to lower the emission standards for new diesel passenger cars to a reasonable level by February 15, 2002, which implied that diesel passenger cars could be sold in South Korea. However, the Ministers left room for negotiation over the introductory timing of the emission standards. For the MOE, the negotiation was very important in its quest to gain other benefits such as the adjustment of diesel fuel prices. The selection of February 15, 2003 as the date to lower emissions standards was a political choice, protecting the new administration from having to deal with such a controversial issue. However, it gave the MOE only one-and-a-half months to sort out the complex implications of the decision.

The advent of another policy entrepreneur

While decision making about diesel passenger cars failed to progress, a new policy entrepreneur joined and helped revive the decision making process. The Korean Federation for Environmental Movements (KFEM),[253] which had functioned outside and even criticized the Alliance, issued a public statement on December 17, 2003 proposing to organize a new discussion forum to build a social consensus on the comprehensive issues associated with diesel passenger cars.[254]

The reasons why the KFEM took the initiative to organize a new consensus forum are threefold. First, the KFEM was the only group in a position to do so, as it was not a

[253] KFEM is a leading grassroot organization for civic environmental issue, which was founded in 1993, and now consists of 25 local branches and more than 25,000 sustaining members.
[254] Yon-Hap News (2002.12.10). 'New Commission for diesel passenger cars is possible?'

member of the Joint Commission. The relationships among the participants in the Joint Commission were seriously damaged. The Alliance needed a reason to justify rejoining the Joint Commission though the MOCIE and automakers had not changed their positions since the Commission had broken up. The MOE tried hard to persuade the Alliance by meeting each environmental group individually, but in vain.

Second, the KFEM, believed to be a competitor with other environmental groups, such as the CMEJ and Green Transport, was in a good position to take the initiative. Third, there was an impending danger that the MOE would allow diesel passenger cars, as Hyundai (Kia) wished, without securing any countermeasures. Unsupported by any environmental groups, the MOE seemed to be helpless.[255]

The reactions from each stakeholder to the proposal of the KFEM were as below[256]:

The MOE: *"If there will be a new consensus building forum where the government, industries, civil organizations, academics, and experts can participate, stakeholders may actively discuss all the issues soon. There is no reason for the MOE to oppose the proposal from the KFEM, given the situation where the MOE should make an advance notice of the regulation of the new emission standards for diesel passenger cars by June 2003. We don't have much time for that."*

Auto industries: *"It is not time yet for us to make a position on the new Commission. But, we agree that there should be discussion on diesel passenger cars as soon as possible."*

The Alliance: *"The KFEM proposed a new Commission as a substitute for the Joint Commission. But, the KFEM should first enroll in the existing Alliance."*

When the KFEM joined the Alliance, it had a new rationale for participating in a new

---

[255] Interview with Professor Jang, Jae-Yeon, a leader of the KFEM, on July 8, 2004. He is a professor at the department of preventive medicine at Ajou University, as well as a director of civil environmental research institute of the KFEM.

[256] Yon-Hap News (2002.12.10). 'New Commission for diesel passenger cars is possible?'

consensus-building forum, and a new source of power to deal with the next round of negotiation around diesel passenger cars. The MOE agreed to organize a new forum as soon as possible. The new Commission was named the "Environment Commission." The first meeting was set up on January 11, 2003.

New change in the politics stream: the advent of "participatory government"

At almost the same time as the proposal for a new consensus-building forum was made, another big change occurred in the politics stream: the advent of "Participatory Government." Following the "Civil Government"' of 1993-1997, the election of President Kim, Dae-Jung marked the first time an opposition leader had been elected as president in Korea. He named his new government the "Government of the People." However, in 2002, as the DJ administration's term was closing and the nation was in transition to a new regime, no one was eager to initiate new programs or regulations. If a conservative and pro-economy administration were elected, a pro-environment policy initiative developed in a more progressive regime was likely to lose its momentum.

On December 19, 2002, South Korea opened a new chapter in its political history. Succeeding Dae-Jung Kim, Moo-Hyun Roh was elected as the 16th President of South Korea. As the candidate of the dominant "Democratic Party" ("Min-Joo Dang") Noh defeated the conservative minority leader, Hoi-Chang, Lee by a margin of only 2.5 percent

(49 percent vs. 46.5 percent). His educational background[257] and non-authoritarian political style was very popular with the general public, fed up with political corruption and party politics.

His political support came from relatively young people who wanted to change politics and enjoyed internet communication .[258] Many progressive civil organizations also favored Noh during the presidential election in 2002.[259] Calling for political reform and war against corruption, president-elect Noh dubbed his new administration the "Participatory Government." By its very name the new government advertised its intent to be more progressive and based on participatory decision making, which NGOs had encouraged. It was expected that the new administration would invite civil NGOs into its core, giving legitimacy to the participatory government by appointing NGO-affiliated people as government officers.

This political and institutional atmosphere signaled positive or negative messages to stakeholders relative to their positions in the disputes on diesel passenger cars and the Special Act for Seoul metropolitan air quality management. Roh's surprising advance to the presidency gave the Alliance and the MOE[260] more political resources in negotiations. However, it raised apprehension among business leaders, especially at large conglomerates, the "Chae-bols," who anticipated that the new administration would focus on distribution

---

[257] President Noh is only high-school graduate. He passed the bar exam to be a lawyer and became a politicians.

[258] It was said that the new government was established by the support of netizen. (Moon-Hwa Ilbo, 2002.12.23).

[259] President-elect Noh emphasized that without my experience in civil movement, he could not be elected as the President. He added that this presidential campaign was special in that he got lots of support from civil groups (President-elect office, 2003).

[260] The MOE did not hide its anticipation of the support from the new President, who was passed for pro-environment. (Hankook Kyungje, 2002.12.21) '[Era of Roh, Moo-Hyun] reactions from each Ministry.'

rather than economic growth.

The impact began to be felt everywhere. For example, a core member of the Alliance was appointed to the advisory staff for environmental issues in the Office of the President-Elect, which opened on December 28, 2002.[261] Interestingly, the Office adopted the Special Act as its first-priority issue in environmental policy when the new administration took office on February 25, 2003[262].

Initiation factors of the Environment Commission

The second round of consensus building began on January 11, 2003. The newly named Environment Commission held eight meetings and one public forum in just one month, concluding February 14, 2003. At the final meeting, participants reached a consensus agreement. This section describes the initiation factors operative in the second round of consensus building, the Environment Commission.

I1: Use of a neutral skilled facilitator

The Environment Commission did not use a neutral facilitator or a team of facilitators. Mr. Koh, Yoon-Hwa, the director of the Air Bureau at the MOE, chaired the meetings of the Environment Commission. As with the Joint Commission, the framework of the Environment Commission had been discussed by the MOE and the Alliance.

---

[261] Interview with Mr. Seo, Wang-Jin, the leader of CMEJ, on July 16, 2005.
[262] (President-elect Office, 2003)

Professor Jang, Jae-Yeon, a leader of KFEM, explained his role in initiating the Environment Commission:[263]

> *"When the Alliance participated in the Joint Commission last year, we (the KFEM) just raised a question on their activities outside the Joint Commission. However, I think we took the initiative in creating the Environment Commission. We discussed the structure and decision agenda of the Environment Commission with the Vice Minister of the Environment and Mr. Koh. So, I think the actual structure and the decision agenda of the Environment Commission represented most of our input."*

Thus, without a neutral facilitator, all important initiation factors in consensus-building theory, including the range of participants and the decision agenda, were determined by the initiators, the Alliance and the MOE. The consequences are discussed in the context of other initiation factors analyzed below.

I2: Conflict Assessment

There was no conflict assessment before the Environment Commission was established. While the Joint Commission was originally set up to discuss the same issues the Environment Commission intended to address, most discussions at the Joint Commission were centered on the issue of diesel RVs due to the urgent administrative schedule. For this reason, there was not enough opportunity for each stakeholder in the Joint Commission to lay out its interests and concerns. Furthermore, after the failure of the Joint Commission, stakeholders approached the MOE individually, or disclosed their positions through the media. It is safe to assume that the MOE learned how each

[263] Interview with Professor Jang, Jae-Yeon, a leader of the KFEM, on July 8, 2004. He is a professor at the department of preventive medicine at Ajou University, as well as a director of civil environmental research institute of the KFEM.

stakeholder viewed each issue through those mechanisms above.

I3: Inclusion of a full range of stakeholder

At the Environment Commission, a total of 15 people (three representatives from MOE, five from the Alliance, and seven from experts, working in academics) participated in collaboration (Table 8-2).

Table 8-2. Participants in the Environment Commission

Affiliation	Title	Name	Remark
The Government (The MOE)	Director of the Air Bureau	Koh, Yoon-Hwa	Chairperson
	Director of the air pollution policy department	Ahn, Moon-Soo	
	Researcher at the Automobile pollution research center	Ryu, Jung-Ho	
The Alliance	Director of civil environment research center (KFEM)	Jang, Jae-Yeon	
	First Secretary (CMEJ)	Seo, Wang-Jin	
	First Secretary (Green Transport)	Min, Man-Ki	
	Secretary General (Green Consumer Network)	Lee, Duk-Seung	
	Director (Korean Environment policy and society research institute)	Shin, Yae-Sup	
Experts	Professor (Seoul City Univ.)	Dong, Jong-In	Nominated by the Alliance
	Professor (Soo-won Univ.)	Jang, Young-Ki	
	Senior researcher (Korea Environment Institute)	Cho, Seung-Hun	Nominated by the MOE
	Researcher (Korea Environment Institute)	Kang, Man-Ok	
	Researcher (KIMM)	Chung, Yong-Il	
	Professor (Korea Univ.)	Park, Shim-Soo	Nominated by industries
	Researcher (Industry research institute)	Chun, Jae-Wan	

As observed in the Joint Commission, the drive from the Alliance for a new collaboration effort was strong; the MOE was also eager to resolve the challenging issues. However, they totally excluded the MOCIE, the MOF, and the industries, while still calling their collaboration a "Private-Public partnership." How could they exclude industrial

stakeholders from the Environment Commission? What were the MOCIE, the MOF, and other industries doing in creating the Environment Commission?

Their exclusion was already predicted when the KFEM proposed the creation of the Environment Commission in December 2002. The KFEM requested that the auto industries should be included only as observers, rather than committee members.[264]

The Alliance and the MOE debated three options for organizing a new consensus-building forum (Box 8-1.)

Box 8-1. Options on the structure of the Environment Commission

The first option:

- Revive the Joint Commission and add the KFEM as committee member to the original membership of the Commission
- Organize subcommittees for sub-fields, such as energy fuel price, scenario analysis of the impact of diesel passenger cars on emissions

The second option:

- Revive the Joint Commission, and add the KFEM as committee member, but exclude the MOCIE, and industries

The third option:

- Create 'Air quality Environment Forum' where the original committee members of the Joint Commission, plus other experts and congressional staff can participate (a total of 26 members)
- Organize a general meeting and sub-Committee meetings
- Sub-Committees will conduct technical fact-findings and committee members in general meetings will review them.
- Sub-Committees focus on the issue of 1) diesel vehicle (new and operating), 2)

Source: Communication document between the MOE and Mr. Jang

[264] Yon-Hap News (2002.12.10). 'New Commission for diesel passenger cars is possible?'

The first option was supported by the original Alliance. The KFEM suggested the second option, and the MOE proposed the third option. In the debate the KFEM successfully persuaded the Alliance and the MOE to adopt the second option and changed the name of the forum from the Joint Commission to the Environment Commission. The new Environment Commission would exclude the MOCIE and industries from collaboration.

The rationales for the second option were threefold. First, neither the MOE nor the KFEM trusted the MOCIE and Hyundai (Kia) as partners, and thought these groups would only obstruct consensus.[265] Second, they did not have enough time to collaborate and make a decision by February 15, 2003.[266] Too many participants would make the process much longer. From their experience during the Joint Commission, Mr. Koh and Mr. Ahn from the MOE recalled the commotion that had taken place among stakeholders at some meetings:

> *"At the first meeting, I gave to all participants sitting around the round table the opportunity to make a statement on the issue of diesel passenger cars. The debates among stakeholders were civil and collegial through meetings in general. There were no curse words during the meetings. However, the debates among automakers and between automakers and oil industries were sometimes very rough because every automaker and oil industry had different interests and positions...We thought that it would be better to proceed to the next Commission without industries, who fight among others and the MOCIE, which is not reliable.[267]"*

> *"We (the MOE) decided to exclude industries from the Environment Commission. Instead, we promised to invite them, if necessary, during the meetings and planned to play as a clearinghouse for industries and economic Ministries.[268]"*

---

[265] Interview with Professor Jang, Jae-Yeon, a leader of the KFEM, on July 8, 2004.
[266] Interview with Mr. Min, Man-ki, a leader of Green Transport on June 10, 2005.
[267] Interview with Mr. Koh, Yoon-Hwa on April 15, 2005.
[268] Interview with Mr. Ahn, Moon-Soo, the former director of transportation pollution department at the air bureau of the MOE on June 20, 2005.

Third, the new group was confident that the MOE would communicate adequately with the MOCIE and other industrial stakeholders in different venues to coordinate all interests.

The MOE contacted the MOCIE and the MOF with the second option. Mr. Ahn, Moon-Soo, the former transportation pollution department director, described the situation when he met with officials from the MOCIE and the MOF about the proposed Environment Commission;[269]

> *"We (the MOE) explained to them that we, as the representative of the government, would negotiate with environmental groups and experts, and would make diesel passenger cars to be sold in the domestic market soon, but only with some preconditions. Then, I asked them whether they could agree to the kind of decision-making structure as the proposed Environment Commission, and accept its proposals. Then, the MOCIE and the MOF agreed to positively review the proposal from the Environment Commission. That's how the Environment Commission started without the MOCIE, the MOF, and the industries."*

Thus, the range of stakeholder representation in the Environment Commission came to look like Figure 8-1.

[269] Interview with Mr. Ahn, Moon-Soo, the former director of transportation pollution department at the air bureau of the MOE on June 20, 2005.

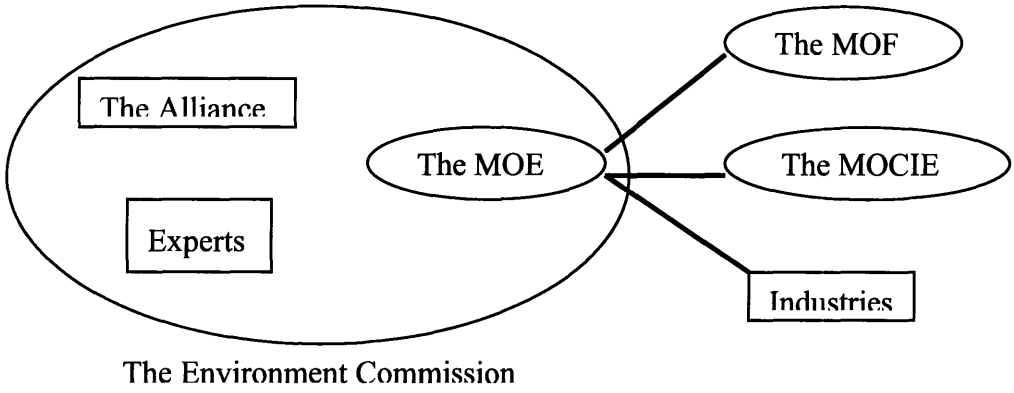


Figure 8-1. Participation structure of the Environment Commission

I4: Clarify multiple issues to allow trade-offs

As the Environment Commission took the baton from the Joint Commission for diesel vehicles, the decision agenda did not change radically. However, subtle changes were evident: First, the issue of diesel RVs was not on the list anymore, because the decision was already made. Second, the assessment of public health problems and social costs associated with automobile emissions was added to the list. Originally, the MOE suggested to the Alliance the creation of an "Air Quality Environment Forum" as part of option 3 (See Box 8-1) and included the issues of public health and the Special Act for Seoul metropolitan air quality management on the list.

However, the issue of the Special Act was not added to the decision agenda for the Environment Commission. The decision agenda for the Environment Commission was finally adjusted through the discussion between the MOE and the Alliance to include:

1) Emission reduction strategies for general diesel vehicles and diesel RVs,

2) Adjustment of transportation fuel prices,

3) Improvement of fuel quality,

4) Assessment of hazardous impact on public health and social costs associated with automobile emissions,

5) Scenario analysis of environmental impact of diesel passenger cars, and

6) Responsibility of automakers in reducing emissions from diesel vehicles.

As seen in agenda setting for the Environment Commission, it could be expected that the MOE would trade lowered emission standards for new diesel passenger cars (Agenda 5) for adjustments to agenda items 1, 2, and 3. The MOE did not want to link the Special Act to the issue of diesel passenger cars yet, even though the MOE had considerable difficulty negotiating with other Ministries within the government during that time. The Alliance shared many interests in the trade offs involved.

Automakers could be allowed to manufacture diesel passenger cars as soon as possible by showing the MOE and the Alliance their will to reduce emissions from their vehicles. However, governmental decisions on fuel prices and fuel quality issues belonged to the MOCIE and the MOF. And those issues were also very critical to automakers and oil industries. All decisions hinged on the scenario analysis of environmental impact (Agenda item 5). ***There were sufficient multiple and clear issues to enable trade offs among the negotiating parties.***

I5: Supporting organizations with implementation power

Once betrayed by the MOCIE and automakers, the Alliance needed to know from the MOE exactly what kind of authority the new Commission would have before they decided to join it. The Alliance did not want the MOCIE and other higher-ups to be able to sabotage any agreement the Commission might have painstakingly formulated. Mr. Koh, Yoon-Hwa, the director of the air bureau at the MOE answered this question:[270]

> *"We should make clear the characteristics, authority, and decision rule of this Commission first. First, this Commission will strive for consensus. With that consensus agreement, the MOE will negotiate with other economic Ministries. I mean the MOE will support the consensus agreement. If there is no consensus in this Commission, I will make a final decision. If you don't like to discuss, you may go. You may make demonstrations or write columns to the media. But, the final decision will be made by the government. While the Environment Commission has the MOE as a member, there are other governmental agencies outside. Let's make a consensus and report it to them. If they don't agree with that, the MOE will take its own step."*

With strong assurances from the MOE, the Alliance joined the Environment Commission.

However, while decisions on emission standards could be made by the MOE, decisions on fuel prices and quality were made by the MOF and the MOCIE. Thus, it was uncertain whether the MOE could get what it wanted from other Ministries through negotiations in the Environment Commission. Furthermore, even if the Environment Commission was successful in making a consensus agreement proposal, the proposal would have to be reviewed at the RRC and Ministerial meetings for the economy, where economic rationales dominated the atmosphere.

---

[270] Interview with Mr. Koh, Yoon-Hwa on April 15, 2005.

Even though the MOF and the MOCIE acknowledged the existence of the Environment Commission and promised to consider any consensus agreement positively, they could not promise that the consensus proposal would become the final governmental decision.

I6: Financial support for process

There was no special budget earmarked for the operation of the Environment Commission. Even though the MOE offered some working fees for the Alliance, the Alliance declined the offer on the ground that they came to the Commission in order to share decision power with governments as an equal partner rather than as just a consultant. However, any research effort by experts from any association was financed by the MOE. Other miscellaneous costs for managing the processes were also covered by the MOE.

I7: Time pressure and deadline

The Ministerial meeting for Economy in December 2002 set the deadline for any conclusion as February 15, 2003. Participants had only one month left to make any progress in collaboration. **This was insufficient time to have experts produce meaningful scientific and technical information on which effective decisions could be made. The looming deadline forced committee members to spend more than ten hours a day collaborating for many days.**

Deliberation factors in the consensus-building process

This section assesses the deliberation factors of the Environment Commission by reviewing the negotiation process from the first meeting to the final consensus agreement.

The first meeting (January 11, 2003)

The first meeting kicked off with an opening address by the Minister Kim, Myung-Ja of the MOE on January 11, 2003. In that address, she expressed hope for "social consensus" on every decision agenda item in the Environment Commission:

> *"I expect the Environment Commission to mark a turning point in public administration in South Korea by building a* ***'social consensus'*** *on every issue associated with diesel vehicles, as well as fuel prices and industrial policies...Basically, the* ***MOE has consistent positions*** *on diesel passenger cars. First, diesel passenger cars cannot be allowed, if those vehicles will affect air quality negatively. Second, we should adjust the energy price system, improve fuel quality, and formulate and implement comprehensive policies for general diesel vehicles as the preconditions for diesel passenger cars. I think that most government agencies and industries already understand many parts of this story.* ***The MOE will try its best,*** *when we negotiate with other Ministries,* ***in order to make sure that any consensus agreement from this Commission can be taken as much as possible as the final government decision****.... Finally,* ***I hope this Commission will be a model for new Governance based on private-public partnership."***

The first meeting was set up to discuss the name of the Commission, select a chairperson, finalize a discussion agenda, assign members to each agenda item according to their expertise, and decide the schedule for upcoming meetings.

D1: Setting a ground rule by participants

Participants appointed Mr. Koh from the MOE as the chair of the Environment Commission, set a discussion agenda, and agreed to try to reach consensus. They decided to meet every week and have additional meetings if necessary. However, they did not discuss other rules about process management together, such as how to control emotions and how to raise their concerns. The most important decision rule was to build consensus. Mr. Koh emphasized the importance of consensus at the first meeting:[271]

> *"We (the participants) talked a lot about decision rule in the Environment Commission. I emphasized several times that the decision would not be made by majority vote, but only by consensus. It should be a unanimous consensus."*

The second meeting (January 17, 2003)

The Joint Commission of 2002 took on a comprehensive range of issues regarding diesel passenger cars and had an accordingly broad group of stakeholders. However, the detailed discussions at the Joint Commission were mainly about diesel RVs. There was not enough knowledge or information to discuss diesel passenger cars, especially for environmental groups. When Mr. Koh tried to persuade the Alliance to join an Environment Commission, he encouraged them to see how technology was developing and how emissions would be changed according to the scenarios. In other words, Mr. Koh

[271] Interview with Mr. Koh, Yoon-Hwa on April 15, 2005.

thought there needed to be a learning process throughout the deliberation process:[272]

> *"At the negotiation table, people can negotiate only when they have similar levels of knowledge. The participants should learn technical issues first, from the structure of diesel engines to characteristics of emissions from diesel engines, to the death rate associated with PM_{10}, to social costs due to air pollution, and to the trend of technological development of automobiles."*

Thus, from the second meeting, experts were invited to present their knowledge to the participants. Mr. Chung, Yong-Il, a senior researcher from KIMM (the Korea Institute of Machinery and Materials), presented the intensification of automobile emission standards in South Korea according to technological development. He also explained the core technology of the DPF (Diesel Particulate Filter), the current status of DPF development in South Korea, the comparisons with other countries' situations, and the potential of DPF as an end-of-pipe technology that could reduce PM_{10} emissions from diesel vehicles.

Mr. Chung was the person who wrote the controversial policy report on the future emission standards for new diesel passenger cars in 1999 for the MOE and KAMA. His position on diesel passenger cars was clear from his comments in a public forum, in a policy report, and in his presentation. Basically, he was on the same page with automakers in that he viewed diesel passenger cars as the future in terms of automobile technology, and believed the domestic market for diesel passenger cars was necessary to develop export to European markets. However, he was also concerned about the increase of PM_{10} and NOx due to the transition from gasoline passenger cars to diesel, if diesel passenger cars were allowed to be sold without any countermeasures. For this reason he was also in agreement

[272] Interview with Mr. Koh, Yoon-Hwa on April 15, 2005.

with the MOE, believing that there should be a comprehensive framework to reduce PM_{10} and NOx emissions from general automobiles. He supported the Special Act for Seoul metropolitan air quality management for that reason. Finally, he argued that automakers were willing to invest more money to develop clean technologies for their automobiles. Considering his comments, his position was very neutral and balanced.

Professor Park, Shim-Soo presented the new technology of clean diesel engines. An expert on automobile technology, he had been nominated by Hyundai (Kia) as their expert in the Joint Commission and seemed ti represent their position in the Environment Commission. He explained HSDI (High Speed Direct Injection) diesel engines and how clean they were. He showed how European countries favored diesel passenger cars and why they did. Lastly, he discussed in great detail how automakers planned to reduce emissions from their diesel vehicles. When he showed how much emissions could be reduced by free emission inspections, the data was challenged as unclear and unsubstantiated by the expert from the Alliance.

The next presentation was made by the MOE. An official from the MOE explained the current energy tax system on fuels and asserted the necessity of adjusting the current system. However, he acknowledged the potential problems of raising diesel fuel prices. These included the resistance of freight transportation industries, and increased fares for public transportation, such as buses. He also showed what other research institutes suggested in terms of an energy price system (Table 8-3).

Table 8-3. Comparison of proposals on energy fuel price system (relative ratio)

Fuel	Current level (January 2003)	Government plan (July 2006)	KEI and KIPF[273]	KIET[274]
Gasoline	100	100	100	100
Diesel	58	75	85	80-85
LPG	43	60	50	44-47

Note: KEI: Korea Environment Institute
KIPF: Korea Institute of Public Finance
KIET: Korea Institute for Industrial Economics and Trade

Also, he announced that the MOE would consult the Korean Gallup poll for market information on consumer's choice for automobiles according to fuel prices. Based on the poll, the MOE was supposed to conduct a scenario analysis on the environmental impact of diesel passenger cars and show the result to the participants in the following meetings. Finally, he explained the MOE's plan to reduce emissions from general diesel vehicles and to improve diesel fuel quality from 430 ppm in 2003 to 50 or 30 ppm in the near future. Control of fuel quality had been in the hands of the MOE since 1991, when the Clean Air Conservation Act included a stipulation to regulate the quality of fuel associated with emissions from automobiles.

[273] The report was issued in November 2002.
[274] The report was issued in November 2002.

The third meeting (January 22, 2003)

The third meeting, held at the YMCA building, lasted seven hours.

D4: Communication between representatives and constituents

In the Environment Commission, the MOE was in a very delicate position. It had to seek the greatest environmental benefits, but at the same time it represented the government, including the MOF, and the MOCIE. The MOE was required to communicate and coordinate with these other Ministries during the Environment Commission. When the Alliance requested too much, the MOE's role was to lower their expectations. Thus, in this structure of negotiations, it was very important for the MOE to communicate well with other Ministries.

The MOE often explained the situation inside the government so that other Committee members could adjust their discussions. For example, the MOE let the Environment Commission know the positions of the MOF and the MOCIE regarding the energy fuel price system.

The MOF already had a government plan to adjust the energy fuel price system, which aimed at a ratio of 100 (Gasoline): 75 (Diesel): 60 (LPG) by 2006. Because that plan had been difficult to negotiate with industry, the MOF did not want to amend it before 2006. If the MOF changed the plan, it would meet strong resistance from bus, taxi, and freight companies. The MOCIE had to consider the impact on industries. It wanted to decrease the price of LPG rather than increase diesel price to the level of 100 (Gasoline): 75 (Diesel): 50

(LPG). The MOCT also argued that increasing diesel fuel prices was impossible. In fact, it insisted on lowering diesel fuel prices for bus, taxi, and freight companies.

The MOE also explained how industries were thinking about major issues (Table 8-4)

Table 8-4. The positions of industries on diesel passenger cars and energy price system

Industries	Name	Diesel passenger cars	Energy price system
Oil industries	SK	Neutral, but don't understand why diesel passenger cars should be allowed	Current government plan (100:75:60) by 2006 But never decrease LPG price
	LG	No diesel passenger cars -concern for air pollution -possible burden to improve diesel fuel quality -economic loss due to decreased sales of gasoline fuels	Current government plan (100:75:60) by 2006 But never decrease LPG price
	S-Oil	Agree	Follow any government decision
	Hyundai	Agree	Follow any government decision
LPG industries	SK gas LG gas	Diesel passenger cars, only if LPG prices down -Concerned about decreased demand of LPG (due to transition of LPG taxis to diesel Taxis) -Taxi account for 50% LPG demand	LPG should be 44-47% of gasoline price.
Automakers	Hyundai (Kia)	'04 EURO-3, '05 EURO-4 To establish domestic market for basis for export To prepare CO_2 convention To develop clean diesel technology	Current government plan (100:75:60) by 2006 - if diesel fuel price is more than 85% of gasoline price, little benefit from sales of diesel passenger cars

	GM Daewoo	'06 EURO-4 If EURO-3 before 2006, there will be more air pollution by increased diesel passenger cars And unfair competition among automakers	Current government plan (100:75:60) by 2006
	Renault Samsung	'05 EURO-4 If EURO-3 before 2005, unfair competition	Current government plan (100:75:60) by 2006
	Ssangyong	'06 EURO-4 If before 06, unfair competition among automakers	Current government plan (100:75:60 by 2006)

D3: Joint Fact-Finding

The most critical decision at the Environment Commission was about 1) which level of emission standards for new diesel passenger cars should be introduced, 2) when, and 3) how it would fit into the energy fuel price ratio. To reach rational decisions on this complex web of issues, Committee members needed to conduct scenario analysis which would show how emissions would change in various scenarios with three variables (which level, when, meeting what price-ratio conditions).

The first question was which vehicle types consumers would choose to buy given certain ratios of fuel prices. The MOE reviewed the report of the Korea Gallup poll research on the transition rate of vehicle types. However, the Environment Commission but not automakers reviewed the questionnaire before Korean Gallup conducted the research. Later, when a staff member had an opportunity to review the questions, he thought the

questions were designed to induce certain answers; he did not appeal to the Committee members at that time.[275]

The fourth meeting (January 29, 2003)

The fourth meeting was held for four hours and 20 minutes. At this meeting, the MOE explained its zero-or low-emission vehicles policies to the participants, and proposed long-term research on environmental impact on public health from automobile emissions with a budget of US 10 million dollars. Mr. Koh emphasized the importance of this kind of research as necessary evidence in pursuing air pollution policies.

The fifth meeting (February 4, 2003)

The Committee members spent more than eight hours at the fifth meeting. They reviewed the scenario analysis presented by the MOE. From this meeting, the MOE seemed to suggest a ratio of fuel prices at 100 (Gasoline): 85 (Diesel): 50 (LPG). In addition, the MOE laid out options for each variable: 1) emission standards and introductory time, 2) transition rate among vehicle types, and 3) energy price system.

1) ***Scenarios of emission standards and its introductory time***

- Scenario 1: In 2004, EURO-3 and in 2006, EURO-4

[275] Interview with an officer from Hyundai.

- Scenario 2: In 2004, EURO-3, but only limited quantity will be sold (by quarter system) and tax incentive for DPF installation, and in 2006, EURO-4.
- Scenario 3: In 2006, EURO-4

2) ***Transition rate among vehicle types according to energy price system***

- Transition rate 1: From Korea Gallup poll

Transition	Scenario (%)		
	100:75:60	100:85:50	100:95:55
Gasoline passenger cars → diesel passenger cars	24.2	9.9	3.7
Diesel RVs → diesel passenger cars	24.0	4.7	1.4
LPG RVs → diesel passenger cars	15.0	6.0	4.5
LPG RVs → diesel RVs	13.4	5.4	4.1
LPG RVs → gasoline passenger cars	16.0	19.8	20.02

- Transition rate 2: More realitic transition (adjust to increase transition rate for diesel passenger cars)

Transition	Scenario (%)		
	100:75:60	100:85:50	100:95:55
Gasoline passenger cars → diesel passenger cars	50.0	40.0	20.0
Diesel RVs → diesel passenger cars	24.0	4.7	1.4
LPG RVs → diesel passenger cars	15.0	6.0	4.5
LPG RVs → diesel RVs	13.4	5.4	4.1
LPG RVs → gasoline passenger cars	16.0	19.8	20.02

Assumption 1: In the poll, most people, who did not want to buy diesel passenger cars, indicated that diesel passenger cars would generate dirtier emissions, and have noise problems. If those people realized that new diesel passenger cars don't have such problems many more of them might buy more diesel passenger cars in reality.

Assumption 2: For the first year, 50,000 diesel passenger cars will be sold, and for the second year, 150,000 cars will be sold.

Assumption 3: Adjustment of fuel price will be finished by July 2006.

With those variables, emissions changes were estimated according to six encompassing scenarios. (Table 8-5, 8-6, 8-7, 8-8, 8-9, 8-10).

Table 8-5. Scenario A: 2004 EURO-3, 2006 EURO-4 + no comprehensive policies for diesel vehicles

		2003	2012					
			100:75:60		100:85:50		100:95:55	
			Emissions (Ton)	Change (%)	Emissions (Ton)	Change (%)	Emissions (Ton)	Change (%)
Transition rate 1	Total	829	787	-5.1	812	-2.1	821	-1.0
	CO	450	408	-9.3	431	-4.3	439	-2.5
	HC	52	51	-3.6	52	-0.8	53	0.7
	NOx	312	313	0.3	314	0.5	314	0.6
	PM	15	16	3.7	15	2.4	15	1.8
Transition rate 2	Total	829	771	-7.0	785	-5.4	803	-3.1
	CO	450	394	-12.4	406	-9.8	422	-6.1
	HC	52	49	-5.7	50	-4.5	52	-1.7
	NOx	312	312	0.1	313	0.4	314	0.6
	PM	15	16	4.6	16	4.4	15	3.3

Table 8-6. Scenario B: 2004 EURO-3, 2006 EURO-4 + comprehensive policies for diesel vehicles

		2003	2012					
			100:75:60		100:85:50		100:95:55	
			Emissions (Ton)	Change (%)	Emissions (Ton)	Change (%)	Emissions (Ton)	Change (%)
Transition rate 1	Total	829	775	-6.5	806	-2.9	817	-1.5
	CO	450	400	-11.2	427	-5.1	437	-2.9
	HC	52	50	-5.4	52	-1.6	53	0.3
	NOx	312	312	0.1	313	0.4	313	0.5
	PM	15	14	-8.0	14	-8.9	14	-9.1
Transition rate 2	Total	829	758	-8.6	774	-6.6	796	-4.0
	CO	450	384	-14.6	399	-11.4	418	-7.1
	HC	52	48	-7.9	49	-6.0	51	-2.7
	NOx	312	312	-0.1	313	0.2	313	0.4
	PM	15	14	-7.7	14	-8.1	14	-8.5

Table 8-7. Scenario C: 2004 EURO-3 with limited quantity and DPF, 2006 EURO-4 + no comprehensive policies for diesel vehicles

		2003	2012					
			100:75:60		100:85:50		100:95:55	
			Emissions (Ton)	Change (%)	Emissions (Ton)	Change (%)	Emissions (Ton)	Change (%)
Transition rate 1	Total	829	787	-5.1	812	-2.1	821	-1.0
	CO	450	408	-9.3	431	-4.2	439	-2.4
	HC	52	51	-3.6	52	-0.9	53	0.5
	NOx	312	312	0.2	313	0.4	314	0.5
	PM	15	15	3.3	15	1.9	15	1.3
Transition rate 2	Total	829	773	-6.8	787	-5.1	805	-2.9
	CO	450	396	-12.0	408	-9.3	425	-5.6
	HC	52	50	-5.5	50	-4.3	52	-1.6
	NOx	312	312	0.0	313	0.3	313	0.5
	PM	15	16	3.9	16	3.7	15	2.6

Table 8-8. Scenario D: 2004 EURO-3 with limited quantity and DPF, 2006 EURO-4 + comprehensive policies for diesel vehicles

		2003	2012					
			100:75:60		100:85:50		100:95:55	
			Emissions (Ton)	Change (%)	Emissions (Ton)	Change (%)	Emissions (Ton)	Change (%)
Transition rate 1	Total	829	776	-6.5	804	-3.1	817	-1.5
	CO	450	400	-11.0	427	-5.7	438	-2.7
	HC	52	50	-5.4	52	-1.7	53	0.3
	NOx	312	312	0.0	313	0.6	313	0.4
	PM	15	14	-8.2	14	-8.5	14	-9.2
Transition rate 2	Total	829	758	-8.3	777	-6.2	799	-3.7
	CO	450	384	-14.0	402	-10.6	421	-6.4
	HC	52	48	-7.5	50	-5.6	51	-2.7
	NOx	312	312	-0.2	312	0.1	313	0.3
	PM	15	14	-7.9	14	-8.4	14	-8.8

Table 8-9. Scenario E: 2006 EURO-4 + no comprehensive policies for diesel vehicles

	2003	2012		
		100:75:60	100:85:50	100:95:55

			Emissions (Ton)	Change (%)	Emissions (Ton)	Change (%)	Emissions (Ton)	Change (%)
Transition rate 1	Total	829	788	-4.9	813	-1.9	823	-0.8
	CO	450	410	-8.8	434	-3.7	442	-1.7
	HC	52	51	-3.4	52	-0.8	53	0.4
	NOx	312	312	0.0	313	0.2	313	0.2
	PM	15	15	3.0	15	1.5	15	0.9
Transition rate 2	Total	829	769	-7.3	791	-4.7	810	-2.3
	CO	450	393	-12.8	413	-8.3	431	-4.2
	HC	52	49	-6.1	50	-3.9	52	-1.3
	NOx	312	311	-0.2	312	0.0	312	0.1
	PM	15	16	4.3	15	3.1	15	1.7

Table 8-10. Scenario F: 2006 EURO-4 + comprehensive policies for diesel vehicles

		2003	**2012**					
			100:75:60		**100:85:50**		**100:95:55**	
			Emissions (Ton)	Change (%)	Emissions (Ton)	Change (%)	Emissions (Ton)	Change (%)
Transition rate 1	Total	829	778	-6.2	809	-2.5	820	-1.2
	CO	450	403	-10.5	431	-4.3	441	-2.0
	HC	52	50	-5.2	52	-1.4	52	0.1
	NOx	312	312	0.0	312	0.2	313	0.2
	PM	15	14	-8.0	14	-8.9	14	-9.3
Transition rate 2	Total	829	756	-8.9	772	-6.9	791	-4.6
	CO	450	382	-15.0	397	-11.7	414	-8.0
	HC	52	48	-8.4	49	-6.7	50	-4.1
	NOx	312	311	-0.2	312	0.1	313	0.3
	PM	15	14	-7.5	14	-8.0	14	-8.4

According to this scenario analysis, it seems that scenarios A, C, E which included no comprehensive policies for diesel vehicles, would lead to increased NOx and PM levels in 2012. However, in scenarios with comprehensive policies for diesel vehicies (B, D, F), the PM level would be reduced in 2012.

In terms of PM_{10}, the ratio of 100:85:50 resulted in more reduction than the ratio of 100:75:60. For NOx, the ratio of 100:75:60 showed better results than the ratio of 100:85:50.

Based on the scenario analysis, the Committee temporarily decided to aim at the ratio of 100:85-95:47-55. However, there were some other options as well. These included:

1)'04 EURO-3, '06 EURO-4 (original scenario): favor Hyundai (Kia)

2) '05 EURO-4 (before 2005, quarter system and certain percentage of DPF) ***(added scenario): favor Renault Samsung***

3)'06 EURO-4 (original scenario): favor Daewoo and Ssangyong

4)'06 EURO-4 (more than 80% DPF) ***(added scenario)***

5) Only if there is 50 $\mu g/m^3$ in terms of PM_{10} then consider diesel passenger cars. ***(added scenario): favor environmental groups***

The new options were created to bolster other automakers' positions. While they decided to prepare a final draft of the consensus agreement by February 8, 2003, there was not enough time to conduct scenario analysis for each of the five options.

Public forum (February 6, 2003)

As the Committee members planned, there was a public forum, in which the excluded parties, such as industries, the MOCIE, and the MOF also participated, on February 6. The forum continued for three hours and 20 minutes at the Korea Environment Institute.

However the forum was designed to present what the Committee members discussed so far and to hear what other industries would say about the issues, not to discuss the issues with them. They did not have time to hear quarrels among industries. Every industry associated with the issues came to the forum, including automakers, oil industries, and gas

industries. However, from other Ministries, only one low-level official from the MOCIE participated as an observer, which showed that other Ministries were either ignoring the Environment Commission, or misjudging its importance.

The Environment Commission had less than a week to hammer out a consensus and pass the agreement proposal first to the government and finally to the Ministerial meeting for a final decision before the new administration began on February 25, 2003. No one knew what would happen to their decisions if they were reassessed by a new administration.

The sixth meeting (February 8, 2003)

With the deadline coming up, the members of the Environment Commission spent almost ten hours in the sixth meeting on February 8, 2003. Fortunately, an email, sent by Mr. Jang, Jae-Yeon, a leader of KFEM, and circulated among the Committee members right before the sixth meeting opened is available. He is believed to be an entrepreneur for consensus building in the Environment Commission. It is useful to read what he thought about the process at that time:

> *"From Mr. Jang, Jae-Yeon on February 8, 2003...*
> *For efficient discussion for today's meeting, I think the proposal below is rational for our consensus agreement. Although I want more as an environmentalist, but there is always other side and we need coordination. It should seem rational to the outside too...*
>
> *[To introduce diesel passenger cars, the PM level should be lowered first. So, the government should strengthen ambient air quality criteria of PM_{10} from 70 $\mu g/m^3$ per year to 50 $\mu g/m^3$ per year. In terms of fuel quality, the level of 50*

ppm of sulfur content in diesel fuels should be achieved by at least 2006. To make sure those policies will be implemented, the government should enact the Special Act and secure the budget for the Act. In terms of emission standards for diesel passenger cars, I propose EURO-4 in 2006 with 100:85:50 ratios of fuel prices. But, to force the automakers to develop clean technologies and DPF technologies, EURO-3 standards can be introduced in 2004 (or 2005) on the contingent upon ( )% of diesel passenger cars with DPF installed, and/or certain numbers of diesel passenger cars being sold. In that scenario, ( ) (kg) of emissions will be generated so that there will be no problem for air quality, or ( ) % increase but very little problem. But given already serious air pollution, the government should implement special measures to reduce more than that amount of emissions in 2004 and 2005 with the help of automakers. If there is more than 50 $\mu g/m^3$ in 2006, in spite of these measures, the government should limit the sales of diesel passenger cars in certain regions, according to the Special act, or there should be a voluntary agreement between the government and automakers to limit the production of diesel passenger cars. This is the best option to improve air quality and induce automakers to be more environmentally friendly. We request help from other Ministries. The bottom line is that the government should prepare all kinds of safeguards and resolve the problem of large diesel and diesel RVs earlier before diesel passenger cars can be sold. We also considered the CO_2 issue in our deliberation.]"

At the beginning of the meeting, the MOE was informed that the MOF and the MOCIE did not want to change the original government plan to adjust the energy price system (by 2006 to 100:76:60) for fear that bus and freight companies would strongly resist any increase. However, these Ministries were open to adjustment after 2006. That was a dangerous signal to the Environment Commission.

However, the Committee decided to stick to the option of 100:85:50 by 2006. They had to re-analyze the scenario analysis of emissions change according to the five options of emission standards including their potential introduction timing. At that point the assessment was not yet finished.

The seventh meeting (February 10, 2003)

At the seventh meeting for three-and-a-half hours, the members of the Commission confirmed that they wanted an energy price system ratio of 100:85:50. Then, they adjusted the options of emission standards and their introduction times again:

1) '04 EURO-3, '06 EURO-4
2) '04 EURO-3.5, '06 EURO-4
3) '04 EURO-3.5 (limited quantity), '06 EURO-4
4) '06 EURO-4
5) '06 EURO-4 (more than 80% DPF)

The eighth meeting (February 14, 2003)

Finally, one day was left before the deadline set by the Ministerial meeting for economy at the end of 2002. The members of the Environment Commission gathered at the YMCA building to hammer out a consensus agreement on February 14, 2003. It was not easy to write; the meeting lasted more than seven hours. At almost midnight, Mr. Koh from the MOE and Mr. Jang, Jae-Yeon from the Alliance declared that they had a consensus agreement (Box 8-2).

Box 8-2. Consensus Agreement from the Environment Commission (February 14, 2002)

1. Strengthen ambient air quality criteria of PM_{10} from 70 $\mu g/m^3$ per year to 50 $\mu g/m^3$ per year.
2. Implement comprehensive plans to reduce emissions from diesel vehicles.
3. Adjust energy price system to ***100 (Gasoline):85 (Diesel):50 (LPG)*** (Original government plan is to achieve 100:75:60 by July 2006) in order to prevent rapid transition from gasoline to diesel passenger cars and prevent the number of diesel RVs from increasing.
4. Reduce sulfur content of diesel fuels from current 430 ppm to 30 ppm in 2006. Apply positive incentive as tax exemption for oil industries that achieve 50 ppm sulfur content in 2004 or distributors of such fuels.
5. ***Enact the Special Act for Seoul metropolitan area as soon as possible.*** (Amend the ***Environment Improvement Charge Act*** in order to secure the budget for urban air quality management. At least 50% should be used for urban air quality management. As the mid or long term, the Environment Improvement Charge should be levied on fuel prices.
6. Amend regulation in order to expand tax reduction, subsidy for Electric Hybrid cars, DPF diesel cars, CNG, LPG vehicles.
7. If those preconditions are sure to be met, the emission standards for new diesel passenger cars will be lowered to the level of ***EURO-4 in 2006***. ***80% of these diesel passenger cars should be installed with DPF with tax subsidy policy. (We propose two options of Phase-in policy of diesel passenger cars in 2005. 1) 50% of EURO-3 vehicles and 50% of EURO-4 vehicles and 50% of those vehicles with DPF; 2) EURO-3 vehicles with DPF, or EURO-4 vehicles)***

Right after the meeting, Mr. Jang, Jae-Yeon said, "This consensus is very meaningful in that environmental groups, experts, and the government successfully built social consensus in formulating public policy decisions for the first time in environmental regulatory history in South Korea." However, other government agencies were waiting to review the consensus agreement.[276]

[276] It is said that the MOE, right before the final agreement by the Environment Commission, offered one alternative to all auto industries and persuaded them to accept the offer. The offer was 1) earlier introduction of EURO-3 vehicles from July 2004, 2) then since January 2005, EURO-3 and EURO-4 together, but with quarter system (only 80,000 vehicles with Euro 3 during 2004-2005 to minimize damage to other automakers, which were not advanced in engine development such as Samsung, Daewoo, Ssangyong. But the other automakers said no to the offer, because that offer would still damage their companies. This small caucus

It was hard labor!

At this point, it becomes difficult to ascertain who said exactly what in which situations in meetings of the Environment Commission. However, it is certain that the consensus building was very difficult. One might think that consensus building would be much easier when those clearly in opposition were excluded from the negotiations. Interviews with the participants demonstrated this supposition to be totally wrong.

First of all, the MOE struggled to mediate between environmental groups and the MOF and the MOCIE, who did not participate in the Commission. The MOE had to go back and forth between them, but not to let either know what was going on. Sometimes members of the Alliance requested too much in return for allowing diesel passenger cars. In that case, officials had to persuade environmental groups not to press too hard.[277] Mr. Ahn, Moon-Soo from the MOE confessed several times at the end of the meetings:

> "*I wished the Commission would be broken, because it was too tough and time consuming.*[278]"

Mr. Jang, Jae-Yeon also remembered difficult times:[279]

> "*We finally succeeded in formulating the consensus agreement with almost ten meetings lasting almost one hundred hours. We sometimes deliberated more*

---

between auto industries and the MOE was convened by the MOE to coordinate auto industries' positions because there was no unified association representing for all of them. The MOE expected that the recommendation from the Environment Commission would be altered in some way through economic ministerial meetings and by pressure from industries. But the MOE's effort was criticized as non-transparent, given that there was an official channel for negotiation inside the Commission, even though among all 15 people in the Commission, there was none to represent industries.

[277] For example, some members of the Alliance argued that energy price should be adjusted to 100:85:50 starting 2005. But, the MOE should say it could not decide the time to change.

[278] Interview with Mr. Ahn, Moon-Soo on June 20, 2005.

[279] Interview with Mr. Jang, Jae-Yeon on July 8, 2004.

than ten hours a day up to midnight. I drafted the consensus agreement. At the critical points when several members of environmental groups and experts did no want to endorse the consensus agreement and wanted to give up building a consensus, I did not give up and persuaded them to endorse it to the last point...

Once, four members bluffed among nine members. For some issues, three members did want to break the Commission."

Mr. Min, Man-Ki, another environmental group leader, hinted why it was difficult to strike a balance during the Environment Commission[280]:

"While it could be expected that the negotiation would be easy without the MOCIE and industries, there was also difficulty in building consensus. There was a big difference in terms of what is right and wrong to justify something important. Also there was a different perspective on what was a balance, or where a balance point was between environment and economy among participants."

The list of participants, their statements during the Environment Commission, and the interviews reveal three or four environmental hardliners, as well as two or three experts biased toward automakers and other industries. Other experts seemed neutral and had balanced positions.

D2: Fair management of the process

According to the interviews with participants, the management of the process by the chair, Mr. Koh, was generally fair. Everyone had an equal opportunity to raise their concerns and gain the same access to the information that they generated. They felt they were respected in deliberations.

[280] Interview with Mr. Min, Man-Ki on June 10, 2005.

High-level government meetings alter the agreement

The consensus agreement dated February 14, 2003 from the Environment Commission went through the review process among other Ministries and was reviewed again at the Ministerial meeting for Economy. This was also the first Ministerial meeting for the new administration on March 26, 2003. The agreement was finally submitted to the first Presidential meeting for economic policy on March 27, 2003.

The next day, the media announced that a final governmental decision had been made at the Presidential meeting and added that it had been based on the consensus agreement from the Environment Commission (Table 8-11).

Table 8-11. Comparison between the consensus agreement and the final government decision

The Consensus Agreement from The Environment Commission (February 14, 2003)	**Final decision from the Presidential meeting for economic policy (March 27, 2003)**
Strengthen ambient air quality criteria of PM_{10} from 70 $\mu g/m^3$ per year to 50 $\mu g/m^3$ per year.	
Implement comprehensive plans to reduce emissions from diesel vehicles.	Implement comprehensive plans to reduce emissions from diesel vehicles.
Adjust energy price system to ***100 (Gasoline):85 (Diesel):50 (LPG)*** (Original government plan is to achieve 100:75:60 by July 2006) in order to prevent rapid transition from gasoline to diesel passenger cars and prevent the number of diesel RVs from increasing.	Adjust energy price system to an ***international level, contingent upon the review of how many diesel passenger cars are sold in 2005.***
Reduce sulfur content of diesel fuels from current 430 ppm to 30 ppm in 2006. Apply positive incentives such as tax exemption for oil industries that achieve 50 ppm sulfur content in ***2004*** or distributors of such fuels.	Reduce sulfur content of diesel fuels from current 430 ppm to 30 ppm in 2006. Apply positive incentives such as tax exemption for oil industries that achieve 50 ppm sulfur content in ***2005*** or distributors of such fuels.

Enact the Special Act for Seoul metropolitan area as soon as possible. (Amend the ***Environment Improvement Charge Act*** in order to secure the budget for urban air quality management. At least 50% should be used for urban air quality management. In the mid or long term, the Environment Improvement Charge should be levied on fuel prices.	Organize the Task Force, including experts, civic groups, and industries in April in order to formulate the content of the Special Act for Seoul metropolitan air quality management and ***decide when it will be enacted. That decision should be made within 2003*** (***Prepare the budget for the Special Act*** through coordination among relevant Ministries)
Amend regulation in order to expand tax reduction, subsidy for Electric Hybrid cars, DPF diesel cars, CNG, LPG vehicles.	Tax support to develop and distribute zero and low emissions vehicles such as CNG, LPG, electric and electric hybrid vehicles (consider subsidy to facilitate installment of DPF for diesel passenger cars)
If those preconditions are sure to be met, the emission standards for new diesel passenger cars will be lowered to the level of ***EURO-4 in 2006***. ***80% of these diesel passenger cars should be installed with DPF with tax subsidy policy. (We propose two options of Phase-in policy of diesel passenger cars in 2005. 1) 50% of EURO-3 vehicles and 50% of EURO-4 vehicles and 50% of those vehicles with DPF; 2) EURO-3 vehicles with DPF, or EURO-4 vehicles)***	Allow the sales of diesel passenger cars in South Korea ***starting 2005***. ***In 2005, EURO-3 vehicles will be sold and in 2006, EURO-4 vehicles will be sold.*** But, 50% automobile tax reduction for diesel passenger cars which can satisfy EURO-4 emission standards so that in 2005, EURO-3 and EURO-4 diesel passenger cars can be sold together (consider disincentive for diesel passenger cars and diesel RVs to prevent rapid transition from gasoline passenger cars to diesel passenger cars)
	The MOE will amend regulations of the clean air conservation act by the end of June, 2003.

In fact, the reviews had produced some changes in the original consensus agreement. Even if the MOE promised to support the original consensus agreement at the Environment Commission, the higher decision-making bodies had changed the content. Had the MOE lied to the Committee members from the beginning? Or had the MOE just negotiated poorly with other Ministries? Or had the other Ministries forced the MOE to change the content?

Turnover of the key personnel by the new administration (Change in politics stream)

The questions above can be partly answered by analyzing the political situation at that time. With the new administration starting on February 25, 2003, each Minister in every cabinet would be replaced on February 27, 2003. That change of personnel added more complexity and uncertainty to the system. The new Minister of Environment, Ms. Han, Myung-Sook took over from Ms. Kim, Myung-Ja. Ms. Han had strong ties to civil NGOs but she had not had enough time to follow the discussions or expertise regarding these particular complex issues. In other Ministries, many public officials who oversaw related issues were replaced, leading to the loss of a great deal of institutional memory.

When the Ministerial meeting was held on March 26, 2003, the Minister of Environment did not strongly support the original consensus agreement. Even if Mr. Koh, a director of the air bureau at the MOE, accompanied the Minister, his advice or comment at the Ministerial meeting was checked and limited by other Ministers.[281]

The MOCIE and the MOF take credit

The revisions on the consensus agreement were actually made jointly among the Ministries before the Ministerial meeting. The issue of adjusting the energy price system

[281] Interview with Professor Dong, Jong-In, an expert nominated by the Alliance, on June 2, 2005.

and fuel quality was coordinated between the MOF and the MOCIE. The issue of the budget for the Special Act for Seoul metropolitan air quality management required MOF review.

Mr. Ahn, a former director at the transportation pollution department of the air bureau, recollected the situation within the government[282]:

> *"When we (the MOE) got the consensus agreement from the Environment Commission, we started negotiating with the MOCIE and the MOF. The first meeting was between the directors from each Ministry. They just erased several contents of the consensus agreement with a red pen on the spot. Their revisions continued to the higher-level meetings with vice Ministers. We (the MOE) felt that those Ministries bullied us. They (the MOF and the MOCIE) just took the agreement on the sales of diesel passenger cars but blurred other agreements associated with preconditions to that decision. There was no assurance to implement those preconditions. It was more like a person did not pay the money when he ate delicious food at a restaurant. We were very upset by their attitude."*

Into the conventional politics stream again

Dissatisfied with the announcement of the final government decisions on diesel passenger cars, all Committee members except three MOE officials began to fiercely resist the government decisions. Some people said that the Environment Commission had just been used by the MOE to allow diesel passenger cars when they should have resisted them. Others in the Alliance argued that if environmental rationales had been trumped by economic rationales in this, the first case of environmental policy making in the new administration, the future of environmental policies in this regime would be gloomy. Since

[282] Interview with Mr. Ahn, Moon-Soo on June 20, 2005.

the Environment Commission did not exist any more, they resorted to tactics common to the conventional politics stream, utilizing every political resource available.

First, some of the Committee members paid a protest visit[283] to the Office of the Minister of Environment on April 1, 2003. They criticized Ms. Han for failing to take responsibility for the agreement. They requested that the MOE try to mandate preconditions for the sales of diesel passenger cars. They held a public rally with a slogan of "No diesel passenger cars" on April 2, 2003. The next day, all the Committee member but three MOE officials held a media conference on April 3, and issued a public statement, criticizing the government decisions:

> *"The government announced that the final decision was based on the consensus agreement of the Environment Commission on February 14, 2003 and air quality improvement plans associated with the agreement would be implemented. However, we are very surprised at the careful review of the final government decisions. First of all, the spirit of the consensus agreement from the Environment Commission was fundamentally ignored. Second, the preconditions for the sales of diesel passenger cars were minimalized and distorted....*
>
> *If the final governmental decisions are implemented without a change, there will be more serious air pollution problems, which will be a threat to the public health and incur enormous social costs. Thus, we feel obliged to make this issue known to the general public....*
>
> *The major premise of the Environment Commission was to build a social consensus on a win-win solution for both environment and economic development* ***by the principle that diesel passenger cars would be sold after air***

[283] In an interview with a stakeholder from an industry sector, he criticized the Alliance's activity as well as the Minister of Environment, in that the MOE was captured by the environmental groups so easily. He sarcastically commented, "how can environmental groups threaten face-to-face the Minster of Environment of a nation? and also how can the Minister of Environment be swayed by the environmental groups' pressure?" He kindly answered his own questions, by saying "You know what, right after Ms. Han, Myung-Sook was appointed as the Minister of Environment, she went to every office of major environmental groups to greet its leaders. If the Minister of a nation comes to their office by herself to introduce her, why not environmental groups think themselves as powerful as the Minister of Environment? Why not other public officials at the MOE try not to ignore the opinions of the environmental groups as their boss do?"

quality was improved...

The Committee members considered not only environmental concerns but also the economic and technical situations of industry sectors...

We proposed to enact The Special Act for Seoul metropolitan air quality management as soon as possible. But, it was decided that there would be only discussion for content and the time to enact. In terms of the energy price system, the government just agreed with the oil industries about maintaining the status quo. The government ignored the recommended 50:50% quarter system of EURO-3 and EURO-4 cars with mandatory installment of DPF.

It is very regrettable that the new administration, called, 'Participatory Government' disregarded the social consensus, reached very painstakingly by the participation of private-public stakeholders. Especially the Committee members who spent huge amounts of time in building a consensus feel like they are being insulted by the government decision...

The announcement from the Ministerial meeting or Presidential meeting is not binding government decision. The MOE should have its own jurisdiction in amending the regulation of emission standards for diesel passenger cars. The MOE should make the right decision, which respects the consensus agreement."

The Alliance representatives, who had been core members of the Environment Commission, resisted the government collectively and strategically (Table 8-12). Their strategies were public rallies, media conferences, and lobbying. The public rallies were designed to blame automakers, the MOCIE, and the MOF, and to portray diesel passenger cars as dirty cars.

Table 8-12. Activities of the Alliance in the conventional politics stream since April 2003

Date	Activities
4.09	Paying a complaining visit to the MOF and meeting the Assistant Deputy Minister.
4.10	Second protest rally against diesel passenger cars.
4.17	Third public rally, body painting performance.
4.18	Meeting with the Minister of Environment
4.20	Campaign to get public signatures against diesel passenger cars on Earth day.

4.23	Fourth public rally against diesel passenger cars.
5.06	Fifth public rally on the world asthma day.

Also upset by these decisions, the MOE made several strategic moves. First, on March 31, 2003, the Ministry released to every media outlet the reference data showing that the Seoul metropolitan area ranked the worst among major cities in all OECD countries in terms of air pollution. The next day, major media began broadcasting to the public the shameful score of the Seoul metropolitan area. One television news program went even further, saying that the government should not have ignored societal consensus through private and public partnerships (MBC news, March 28, 2003).

The legislature also took the side of the pro-environmental coalition. On April 14, 2003, the Committee of Environment and Labor at the National Assembly said that the MOE should delay the amendment of the Clean Air Act for adjusting emission standards for diesel passenger cars until all safeguard conditions were met. Furthermore, the Committee decided to adopt a resolution to request the rapid enactment of the Special Act.

Taken aback by the strong resistance of the Alliance, the MOCIE suggested creating a new task force with the MOE to discuss whether to adopt the Special Act or not by the end of April 2003. The MOE declined the MOCIE's offer, saying that that the creation of a new task force to discuss the issue would waste time, given that officials from both ministries had already had many discussions. One MOE official took this opportunity to say that the MOE could not postpone the Special Act any more, because it had already compromised considerably with the MOCIE and industrial sectors on the issue of sales of diesel passenger cars.

Even President Noh, on April 2, 2003, promised the Minister of Environment that he would resolve the disputes by convening an intergovernmental meeting unless consensus could be reached on the safeguard options. He encouraged her to enact the Special Act at any cost, because air pollution was a threat to public health that could be remedied. That was a very decisive political blow to resistance of the MOCIE and the MOF to the Special Act.

The MOE's linkage politics

Finally, on April 8, 2003, the MOE linked the issue of diesel passenger cars to the enactment of the Special Act. It announced that if other Ministries would not cooperate in supporting safeguard measures for allowing diesel passenger cars, the MOE would set aside the adjustment of emission standards.

Originally, the MOE was not willing to link the Special Act to diesel passenger cars. However, the Alliance strongly requested the MOE to make that linkage for the sake of negotiation. Consider the interview with Mr. Jang, Jae-Yeon from the Alliance, who took the initiative in every step at the Environment Commission:

> *"When we (the Alliance) held a media conference and issued a public statement on April 3, 2003, I drafted the public statement and read it for myself. Besides that, I was on the air in radio stations five times to strongly criticize the government including the MOE. We met government officials in person and almost threatened them by revealing the Alliance's potential extreme measures such as suing the Ministers, and conducting public campaigns to expel Ministers. We strongly persuaded them (the MOE) to link the Special Act with diesel passenger cars. Finally, the MOE agreed to our advice and did not amend the regulations of emission standards for new diesel passenger cars in*

May 2003."

On April 18, 2003, the MOE conducted a public opinion survey regarding air pollution in the Seoul metropolitan area and announced the result. Sixty percent of the residents thought that air pollution in their area had reached a level critical enough to threaten their health. Most importantly, 86.5 percent of the respondents thought that the Special Act was necessary and should be enacted and implemented. As promised, the MOE ignored the issue of adjusting emission standards for diesel passenger cars when it issued advance notice of the amendment of regulations in the Clean Air Act on May 9, 2003. The issue of diesel passenger cars and others were still unresolved. The relationships among stakeholders became worse than before.

Chapter Nine

Task Force (Round #3)

This chapter focuses on the decision-making process for the enactment of the Special Act for Seoul metropolitan air quality management (hereafter, the Special Act), which had been prepared by the MOE in 1999. Chapter 6 presented the MOE's preparation of the Special Act as one of the two major changes in the policy stream in 1999.

One motivation for the preparation of the Special Act was to have new comprehensive policy measures in place for a new cycle of long-term planning for 2003-2012. The establishment of the new measures were designed to strengthen the air bureau of the MOE with more funding and manpower. Another, more practical reason to pass the Special Act was to prepare against the future challenge of diesel passenger cars. The MOE already expected that they would allow the introduction of diesel passenger cars for a few strategic reasons around 2002. Given the seriousness of air pollution that the MOE had monitored, the MOE needed several approaches to minimizing the environmental impact of diesel passenger cars. One major plan for that purpose was the Special Act. That's why the Special Act included so many provisions on automobile pollution.[284]

The MOE's efforts to enact the Special Act during 2002 were relatively hidden from the public, not only because there was more noticeable public dispute around issues of diesel passenger cars and diesel RVs at almost the same time, but also because the MOE's

[284] Interview with Mr. Ahn, Moon-Soo on June 20, 2005.

moves happened mostly within the government.

However, the Special Act also got the public's attention when the MOE linked the enactment of Special Act to the issue of whether to lower emission standards for new diesel passenger cars in early 2003. As a result, the Task Force for the Special Act came into being in June 2003 to build a consensus on the content of the Special Act.

An account of the conflicts among government Ministries around the Special Act in the next section provides a background for further discussion of the Task Force

Controversial Special Act

Encouraged by the successful enactment of the Special Act for management of the four major rivers in January 2002, the Minister of Environment, Ms. Kim, Myung-Ja, could afford to focus on the MOE's next ambitious plan for urban air quality management prepared by the air bureau of the MOE. In her annual report on the operations of the MOE in March 2002, Ms. Kim presented the "Blue Sky 21 plan" (another name for the Special Act) to President Kim, DJ. The MOE wished to enact the Special Act, if possible, before this administration came to an end in December 2002, because there was no way to know what kind of administration would come next, and how it would view air quality management and related issues.

In the mean time, the air bureau of the MOE had become involved in the Joint Commission and officials were spending most of their time in that process. The very next day after the fourth meeting of the Joint Commission (July 24, 2002) in which the MOE

almost finalized the consensus agreement on the diesel RV issue with automakers and the Alliance, the MOE held a public forum on the improvement of Seoul metropolitan air quality and announced the draft of the Special Act. By then, the Ministry had become so absorbed in the Joint Commission that it could not afford to unilaterally enact the Special Act.

For policy proposal to be enacted as a new Act, it must pass through more than ten decision-making steps (Figure 9-1). Unlike an amendment, or creation of administrative rules or regulations, the enactment of a new Act must be passed through the National Assembly. Following the public forum, the MOE circulated the draft proposal of the Special Act among other Ministries to elicit their comments on August 31, 2002. What the MOE heard from these Ministries were not calls for coordination, but nearly coercive recommendations not to initiate it.

The main framework of the Special Act was to 1) establish a total air pollution load management system, 2) introduce an emission-trading system,[285] and 3) stipulate mandatory purchase of low-emission vehicles. To implement the Special Act in stages, the MOE would need to invest 5.2 billion USD by 2012.

The Ministry of Planning and Budget (MPB) commented that the new Act was unnecessary because the Clean Air Conservation Act already existed and that there could not be a special budget or funding for the Special Act. The MOF also sent a negative signal on the creation of a new budget for the Special Act. The MOCT lined up in opposition to the proposal of the Special Act on the grounds that some of its provisions could prevent the

[285] It is more like a cap-and-trade system in US Air Quality Management District (AQMD).

construction in the Seoul metropolitan area of facilities or factories that might contribute to exceeding the total load of specific air pollutants the Special Act would allow. The MOCT also requested that all provisions associated with transportation should be removed. The MOCIE maintained that the total load management system and emission-trading system would impose a heavy burden on the industry sector located in the Seoul metropolitan area. The MOCIE argued further that all provisions associated with energy should be erased.

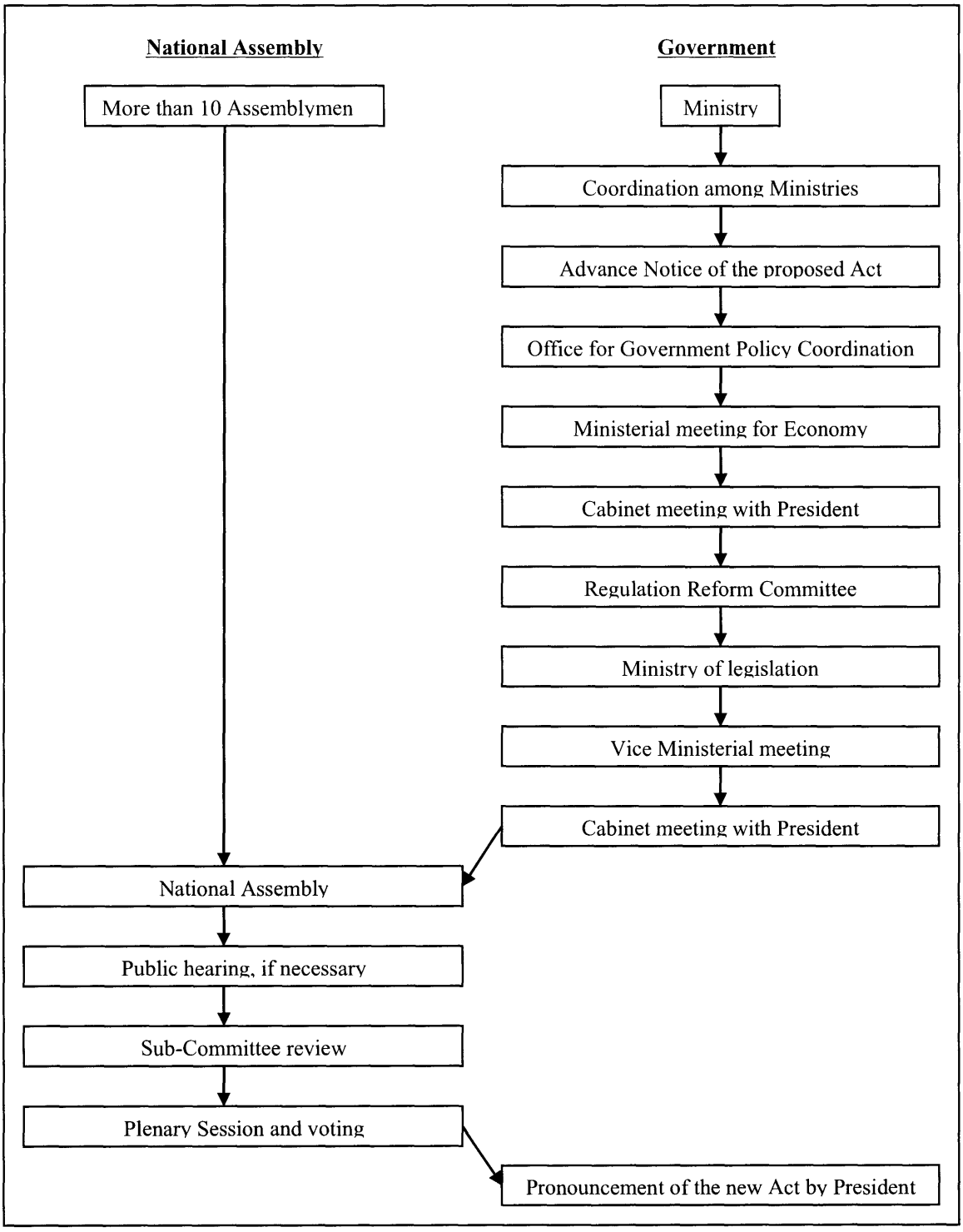


Figure 9-1. Enactment process for a new Act

Mr. Ahn, Moon-Soo, the former enforcement officer at the MOE, recollected his frustration when he received these comments from other Ministries:[286]

> *"The MOCIE sent almost a book-like report with their comments on every article and provision. And, most comments said that this was not feasible, that was not possible, because of this, and that. We (the MOE) were terribly frustrated with that. We thought it might be impossible to enact this Act."*

While the MOE had a hard time managing the Joint Commission due to the unexpected RRC intervention, it was willing to adjust the Special Act proposal somewhat based on the comments received in the coordination process. Taking another step toward the enactment of the Special Act, in October 31, 2002 the MOE made an advance notice of the proposal of the Special Act in order to elicit comment from the general public.

Soon, a new line of next stakeholder resistance emerged.[287] The Federation of Korean Industries (FKI) requested that the MOE postpone introducing the total loading management system of air pollutants until there was certainty in measuring the amount of emissions from sources, and in establishing fair and objective criteria for the allotment of total loading amounts to them. The FKI also suggested that if there were to be an Air Quality Management Commission, the chair should be the Prime Minister rather than the Minister of Environment. The Korea Chamber of Commerce and Industry (KCCI), another industry association, commented that it opposed the enactment of the Special Act, though it acknowledged the need to improve air quality. Its main reason for opposition was that the

---

[286] Interview with Mr. Ahn, Moon-Soo on June 20, 2005.

[287] One interesting comment from a citizen was that there should be a provision for mandatory telework in order to reduce automobile driving between home and working places.

regulations of the Special Act would reduce industrial activities with and prevent new entrepreneurs from opening new businesses;[288] they also said that there was not enough scientific data and methodology to implement the Special Act. KAMA also opposed specific provisions regarding mandatory manufacture of low-emission vehicles. The Korea Petroleum Association was opposed to the Special Act on the grounds that existing regulations could perform the same functions it included. The most common themes in comments from industry sectors were that industries needed lead time, that there should be scientific backup, that compliance would impose too great financial burdens, and that the chair of the new Commission should be a Prime Minister, not the Minister of Environment.

Many research institutes raise their voices in support of either the MOE or the industrial sector. For example, the Korea Institute of Industry and Technology Information (KIET) issued a report objecting to the regulation of industry, which in their view contributed much less to air pollution than did automobiles.

Faced with such strong resistance, the MOE chose not to abandon its quest to enact the Special Act within the DJ administration but agreed to adjust its original plan and still send it to the National Assembly by the end of 2002.

[288] The KCCI released its report that the new Act would cost to each industry sector about $2 million as capital costs and $0.6 million as operational cost.

Build a coalition with lawmakers!

In defending its rationales for the Special Act against criticism and resistance from stakeholders, the MOE took a very smart step in building a coalition with lawmakers. As seen in Figure 10-1, any proposed Act needs to pass the review of the National Assembly. If individual lawmakers favored the Special Act, it would have a much greater chance to pass. The MOE contacted Mr. Oh, Sae-Hoon, a new young lawmaker in the minority party ("Han-Na-Ra-Dang") who was interested in the environment.

Politicians at that time were particularly interested in being seen as stewards of the environment. Given the seriousness of urban air pollution, it seemed natural that lawmakers would want to do something for the general public. Fortunately, lawmaker Oh, Sae-Hoon was willing to take the initiative in proposing the bill regarding the improvement of air quality in the Seoul metropolitan area. Finally, on November 6, 2002, 41 politicians submitted the proposal for a new Act for the improvement of air quality in Seoul metropolitan area. The content of the bill proposed by those politicians was almost the same as the proposal of the Special Act by the MOE. Clearly, the MOE helpd Mr. Oh prepare the language of his bill for the National Assembly.

Among the 41 sponsoring politicians, eight people belonged to the majority party—the proposal was a bipartisan effort. On the same day, those politicians submitted another bill for the adjustment of Environment Improvement Charge Act, which was aimed at levying a charge on diesel fuels rather than on, the vehicle price and transferring 50 percent of the collected funds to implement the air quality improvement Act in Seoul metropolitan

area. In this case, the MOE lobbied politicians successfully to enact the Special Act through the National Assembly. If the proposal by the MOE died during the government coordination process, another proposal from those politicians would be shepherded through the National Assembly.

The Special Act as the MOE's main interest

During the whole consensus-building effort including both the Joint Commission and the Environment Commission, the MOE's main strategy in negotiation was to hold onto the emission standards for new diesel passenger cars card as long as possible as leverage to gain other important policy options such as the adjustment of the energy price system (increased diesel fuel price) and the Special Act. However, if the MOE had been asked which of these options would be most valuable, it would have chosen the Special Act. The adjustment of the energy price system lay in the jurisdiction of the MOF and the MOCIE, but the implementation of the Special Act would be in the hands of the MOE. Furthermore, passage of the ambitious Act would bring more funding and manpower to the MOE air bureau. The MOE was strategically changing its policy focus away from water quality management toward air quality management. Mr. Koh, the director of the air bureau, continued to ask environmental groups to support the Special Act, even if the environmental groups had to give up restrictions on diesel passenger cars.[289]

Since 2001, the MOE had made several politically strategic moves to increase its

[289] Interview with Mr. Koh, Yoon-Hwa on April 15, 2005.

negotiating power within the government in order to enact the Special Act:

- Building coalitions with lawmakers,
- Making the Special Act one of the priority policy goals for the new "Participatory Government" in order to prioritize the issue on the government's decision agenda,[290]
- Persuading environmental groups to support the Special Act,[291] and
- Using the media to show the public how seriously bad the urban air quality in the Seoul metropolitan area had become (Comparison with other OECD countries, Social costs associated with public health).[292]

Linkage between the Special Act and diesel passenger cars

The new "Participatory government" raised expectations for the enactment of the Special Act, though the new set of ministers were less familiar or committed to it.

---

[290] The new government of Noh, Moo-Hyun was said to be established by the support of civil organizations, because the new president enjoyed many favors by civil NGOs during the presidential election in 2002. The new government appointed some ministers, of whom some were affiliated to NGOs. This political and institutional atmosphere started to give the Alliance more political resources in negotiations with other stakeholders. In reality, a core member of the Alliance was appointed to the staff in the Office of the President-Elect, which opened on December 28, 2002 and closed on February, 21, 2003. The new administration continued with the previous DJ administration in terms of tenets and policy goals. Most interestingly, the Office adopted the Special Act as one of priority policies in its new administration starting 2003.

[291] In practice, the consensus agreement from the Environment Commissiosn included the enactment of Special Act as one of precondition to allow diesel passenger cars in South Korea.

[292] In December 2002, MOE reported to the press that social costs associated with air pollution amounted to US $ 976 million per year, which almost accounts for 4.2% of Seoul metropolitan area's GDP. In addition, quoting a US research report, MOE argued that the death rate from cerebral infarction might increase 6% due to degraded air pollution and went further to say that the death toll from air pollution might be three times as high as that from traffic accident.

Furthermore , as the consensus agreement from the Environment Commission regarding diesel passenger cars was watered down (as the Alliance argued), the Committee members, including environmental groups, jumped into the conventional politics stream, resorting to polarizing political strategies such as public rallies.

However, because the new Minister of Environment had cultivated very close relationships with civil organizations before she was appointed, the Alliance could connect with her easily.[293] As a result, the Minister of Environment officially linked the issue of diesel passenger cars to the Special Act. The message was clear: No Special Act, no diesel passenger cars in South Korea.

Power game inside the government

The situation inside and outside government was more favorable to the MOE than to the MOCIE and the MOF. The MOE was able to use this power during negotiation inside government with other Ministries. First, while the diesel RVs problem was resolved, the issue of diesel passenger cars had gone nowhere since the issue was raised at the end of 2001. Automakers were getting nervous and complaining that they could not invest appropriately due to the uncertainty of government policies. Second, even though the government suggested creating a Task Force to decide on the content and the timing of the Special Act with the participation of environmental groups, there was fierce pressure from

[293] The officials at the MOE were negative on the linkage between the Special Act and diesel passenger cars on the grounds that diesel passenger cars were national issue, but the Special Act was only for Seoul metropolitan area, and that there was too much political risk for a new Environmet Minister to resort to political jujitsu with powerful economic Ministries.

environmental groups and the Committee members of the Environment Commission to repeal the Commission's consensus agreement so that diesel passenger cars could not be sold.

Third, the legislature also took the side of the pro-environmental coalition. On April 14, 2003, the Committee of Environment and Labor at the National Assembly directed the MOE to delay the Clean Air Act amendment to adjust emission standards for diesel passenger cars until all safeguard conditions were met. Furthermore, the Committee decided to adopt a resolution to request the rapid enactment of the Special Act. Fourth, Even President Noh, on April 2, 2003, promised the Minister of Environment that he would resolve the disputes by convening an intergovernmental meeting unless a consensus on the safeguard options could be reached. He encouraged her to achieve the enactment of the Special Act at any cost, because air pollution was a public health issue that could be solved. This was a very decisive political blow to the opposition of the MOCIE and the MOF to the Special Act.

Decisive decision from the Ministerial meeting for Economy (May 30, 2003)

Politically pushed back, the MOF and the MOCIE yielded to the MOE in the Ministerial meeting for Economy on May 30, 2003. Through a bargaining process based on a power game in the conventional politics stream, rather than through persuasion or learning based on scientific assessment, the Ministers made several revisions to their

previous decisions on March 27, 2003. These incurred much criticism from many parts of society (Table 9-1). For example, the Ministers decided to conduct immediate government research on the adjustment of the energy price system, hold public hearings in order to make a final decision by the end of 2004, and change the regulation in 2005. Most importantly, they decided that the Special Act should be enacted by the end of 2003. The MOE almost achieved its purpose with this decision, and the environmental groups ceased agitating against the government. The hostility among the actors had died down. Major disputes were resolved.

Table 9-1. Comparison of changes in decisions

Issue	**Environment Commission**	**Ministerial meeting (March 27, 2003)**	**Ministerial meeting (May 30, 2003)**
Energy price system	100:85:50 by July 2006	To the international level, but decide in 2005 contingent upon how many diesel passenger cars are sold.	Get right on the review by conducting research, and public hearing and decide by the end of 2004
Sulfur content in diesel fuels	Incentive for refineries and distributors of diesel fuels with less than 50 ppm starting **2004**.	Consider the incentive for refineries and distributors of diesel fuels with less than 50 ppm starting **2005**.	Consider the incentive for refineries and distributors of diesel fuels with less than 50 ppm starting **2004**.
DPF Installation	In 2005, more than 50% of diesel passenger cars In 2006, more than 80% of diesel passenger cars	Consider incentives for DPF installation	Conduct research on DPF installation in 2003 and make a decision on the range of incentives in 2004
The Special Act	Enact the Special Act as soon as possible and secure the budget for it	Establish a Task Force **in order to discuss in 2003** the content and **the implementation schedule of the Special Act**	Establish a Task Force in order to finalize government proposals by the end of August and **enact the Special Act at the end of 2003**

The major issues for environmental groups and the MOE had been resolved. Automakers could begin investing their money in the development and manufacture of diesel passenger cars, and begin selling them in 2005. The environmental groups had participated in government decision making as partners and affected the decisions and secured many measures to offset potential emissions from diesel passenger cars. The MOE also had also been able to upgrade its air quality management policies and enact the Special Act.

However, there were still controversial contents in the Special Act that other Ministries did not want implemented. The struggle was not over. Environmental groups agreed with the government decision that they could participate in the Task Force for the Special Act.

Initiation factors of the Task Force

The Task Force started its operations on June 4, 2003. It had to build a consensus on the content of the Special Act in two months in order to submit the agreement proposal to the National Assembly. During this period, the Task Force had three plenary meetings and six sub-committee meetings. At the last meeting on July 25, 2003, Task Force members declared that they had reached a consensus agreement. This section assesses the initiation factors as they operated in the Task Force, the third round of consensus building in this case study.

I1: Use of a neutral skilled facilitator

The Task Force had (a) neutral facilitator(s), holding contracts with conveners and stakeholders as consensus-building theory prescribes. However, there was debate on who should be the chairperson of the Task Force even before the idea of a Task Force was initiated inside the government.

The idea of Task Force emerged in the Ministerial meeting for Economy on March 23, 2003. To ease the tension associated with the Special Act at that time, the Ministers developed three options:

- Option 1 (by the MOF): Make a principle that the Act would be enacted, and ***establish the Task Force***, and conduct pilot projects to assess the feasibility of a cap-and-trade management system for Seoul metropolitan area.

- Option 2 (by the MOE): Enact the Act first, then discuss when to implement the Act through careful coordination among Ministries.

- Option 3 (by the MOCIE): Enact another Special Act on the reduction of automobile emissions, rather than the Special Act on the Seoul metropolitan area: Focus on automobiles first, then later focus on point sources such as factories.

After much debate, option 1 was adopted and announced from the Ministerial meeting on March 27, 2003, which caused lots of turmoil. The idea of the Task Force was first suggested by the MOF.

In constructing option 1 the MOF suggested its operating scheme, and proposed nominating the ***Vice Minister of Finance, or the Assistant Deputy Minister of Finance as the chairperson of the Task Force.*** However, the MOE argued that the ***Vice Minister of Environment*** should be the chairperson of the Task Force, because the MOE was the main

agency behind the Special Act. Finally on May 30, 2003, at the Ministerial meeting, it was decided that the Task Force would be launched with the Vice Minister of Environment as its Chairperson.

I2: Conflict Assessment

There was no conflict assessment by neutral assessor(s) before the Task Force was launched. Major conflicts on diesel passenger cars and diesel RVs were resolved, or ignored in the final decision of the Ministerial meeting on May 30, 2003. Even though the government had just announced that there would be further research on the appropriate ratio of fuel prices, and policy measures to facilitate DPF installation, environmental groups and the MOE said that they could live with that decision as long as the Special Act could be enacted in 2003.

Thus, the most controversial issues were about the content of each provision or regulation in the Special Act. For example, the questions included:

- What is the range of the air quality management district? Only the Seoul metropolitan area, or the area including industrial facilities near the Seoul metropolitan area?
- Which pollutants should be managed with a total loading system?
- When will the Special Act be implemented?
- Etc?

Different interests and positions of other Ministries were sorted out when the MOE circulated the first draft of the Special Act among other Ministries in August, 2002. Other

private stakeholders had an opportunity to comment on the proposed Special Act during the notice and comment period in October, 2002. Furthermore, officials at the air bureau of the MOE emphasized that they had consulted with many stakeholders by holding public forums including special regional public forums, and by meeting with industry sectors, environmental groups, and their counterparts from other Ministries. In interviews they remembered[294] holding more than 90 meetings associated with the Special Act. In their view, they had enough information on how stakeholders felt about each stipulation of the Special Act.

I3: Inclusion of a full range of stakeholders

When the MOF proposed operating a Task Force in March, 2003, the MOE suggested inviting 15 stakeholders: ***five*** from government sectors including the MOF, the Ministry of Planning and Budget (MPB), the MOCT, the MOE, and the MOCIE; ***three*** from environmental groups (CMEJ, Green Transport, and KFEM); ***two*** from industrial sectors (The Federation of Korean Industries (FKI) and the Korea Chamber of Commerce and Industry (KCCI)); and ***five*** experts from research institutes, each sponsored by one of the ministries involved.

However, the MOF pointed out the disproportion between the numbers of participants from the environmental groups and industries and argued that these numbers should be equal. They decided that industry should have three stakeholder representatives in the Task Force.

[294] Interview with Mr. Park, Kwang-Seok, and Mr. Ahn, Sae-Chang, at the MOE on June 21, 2004.

Finally, after further discussion within government, it was decided that one more government official from the Office for Government Policy Coordination (OGPC), and one from KAMA would participate in the Task Force, and that three experts would be excluded from the original list of participants. Thus, there remained only two experts: one for the Alliance and one for the industry sector (Table 9-2).

Table 9-2. Committee members of the Task Force

Affiliation	**Title**	**Name**
The MOE	Vice Minister (Chair)	Kwak, Kyul-Ho
The MOE	Director of the air bureau	***Koh, Yoon-Hwa***
The OGPC	Director of industry division	Woo, Joo-Ha
The MOF	Director of the economic policy bureau	Park, Byung-Won
The MOCT	Director of the ground transportation bureau	Yang, Sung-Ho
The MOCIE	Director of the industrial policy bureau	Choi, Jun-Young
The MPB	Director of industrial finance division	Shin, Cheol-Sik
CMEJ	First Secretary	***Seo, Wang-Jin***
Green Transport	First Secretary	***Min, Man-Ki***
KFEM	Director	Jang, Jae-Yeon
The FKI	Executive Vice President	Lee, Seung-Cheol
The KCCI	Executive Vice President	Lee, Hyun-Seok
KAMA	Executive Vice President	Lee, Dong-Hwa
Soo-Won University	Professor	***Jang, Young-Ki***
Joong-Ang University	Professor	Kim, Jung-In

Note: The highlighted and bold names indicate that they participated from the Joint Commission through the Environment Commission to Task Force. Mr. Jang, Jae-Yeon also participated in the Environnment Commission actively.

In terms of the range of stakeholders participating, the Task Force was different from other previous Commissions. There were seven public officials from all Ministries. In the Joint Commission and the Environment Commission, officials from the MOE were actively involved. In terms of government sector stakeholders, the Task Force included a full range of participation from all Ministries related to the provisions of the Special Act. However, it

is not certain that the FKI and the KCCI could represent all industry sectors, including taxi, bus, and freight industries.

I4: Multiple, clear issues to allow trade-offs across the issue

The decision agenda for the Task Force was also proposed by the MOE and accepted by other Ministries. There were two categories of agenda items: One for the Special Act and one for diesel passenger cars. There were more than 25 controversial provisions in the Special Act among which the parties could negotiate and trade-off.

In terms of other issues related to diesel passenger cars, there was no concrete plan for energy price system or for DPF installation in diesel passenger cars. Even though the MOE and environmental groups did not say much about the decision announced by the Ministerial meeting on May 30, 2003, they wanted to make sure those policies would be implemented with a concrete schedule for implementation.

Thus, as the MOE suggested, the decision agenda for the Task Force included:

- Consensus on controversial provisions of the Special Act (In particular, cap-and-trade policy (a total air pollution load management) for industrial facilities,
- Adjustment of energy price system,
- Incentive measures to facilitate DPF installation for diesel passenger cars, and
- Budget for implementation of the Special Act.

I5: Supporting organizations with implementation power

While the MOE convened the Task Force, all governmental agencies had various implementation powers. They participated in initiating and designing the Task Force and supported its legitimacy from the beginning.

I6: Financial support for process

There was no special budget earmarked for the operation of the Task Force. However, all the necessary research was supposed to be done by government-funded research institutes. No problems were caused by the lack of special funds for the Task Force.

I7: Time pressure and deadline

For the Special Act to be enacted by the end of 2003, the members of the Task Force needed to reach consensus on more than 25 provisions of the Special Act in about one month and submit it to the National Assembly. For other issues such as adjustment of the energy price system and DPF installation, which required long-term joint fact finding, there were no impending deadlines.

While the number of issues to be resolved in only a month seemed very large, in fact they had been debated among Ministries since August 2002. Those issues were not new to government stakeholders.

Deliberation factors of the Task Force

This section assesses the status of the deliberation factors in the Task Force by reviewing the negotiation process from the first meeting to the final consensus agreement.

The first plenary meeting (June 4, 2003)

The first plenary meeting was held on June 4, 2003 at the office of the Vice Minister of Environment for one-and-a-half hours. Usually, the first meeting is for discussion on how to operate a forum or organization. Likewise, the first meeting of the Task Force was to discuss how to structure and operate the Task Force. As for the previous Commissions, the MOE first presented its plan to structure and operate the Task Force and then heard discussion based on that proposal.

D1: Setting a ground rule by participants

There was no ground rule setting in the first meeting. However, participants talked about the structure of the Task Force, the decision agenda, and meeting schedules (Figure 9-2). Basically, they decided to adopt consensus as their decision rule.

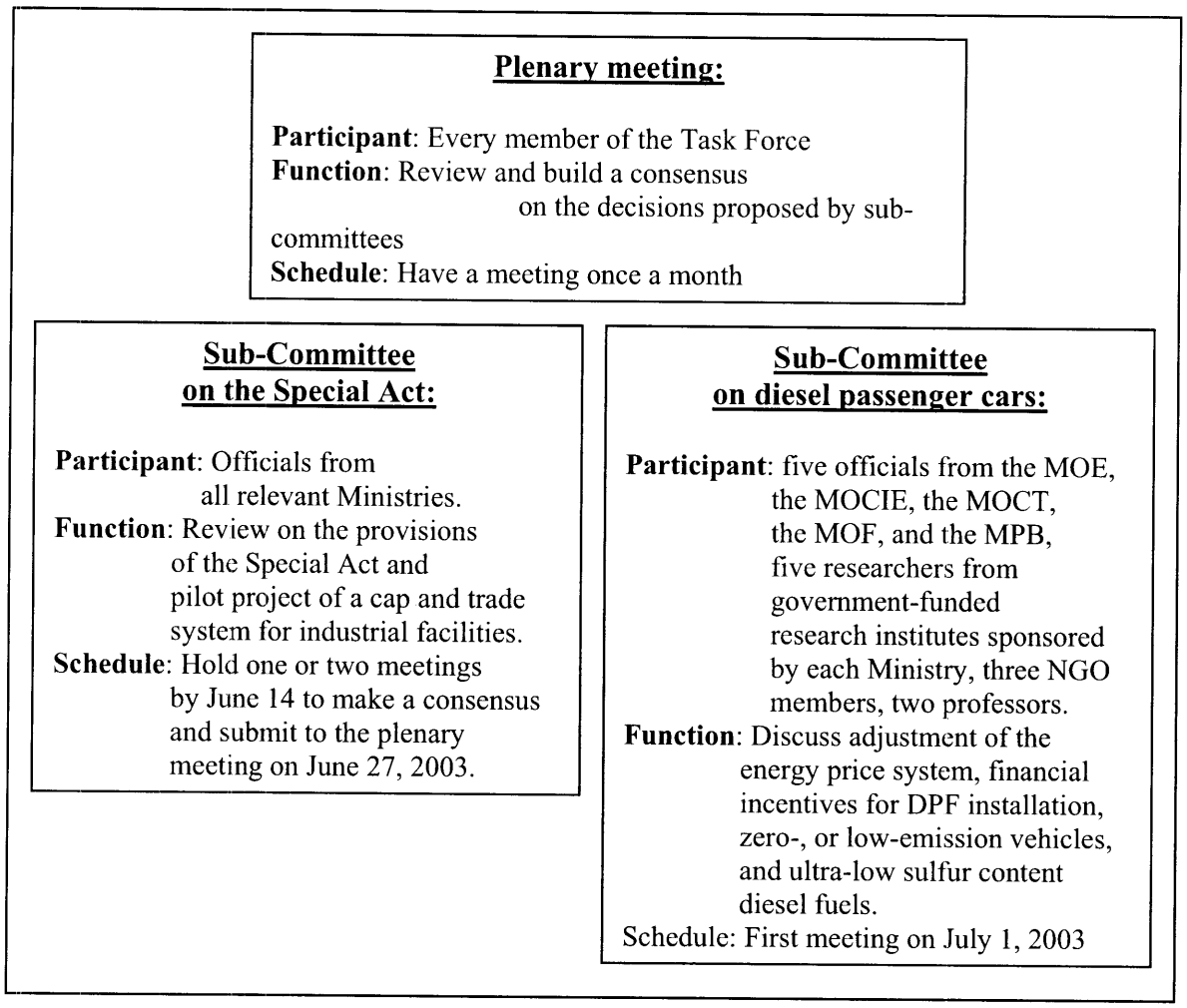


Figure 9-2. Structure of the Task Force

D3: Joint Fact-Finding

The time was too short (one month) to find facts on which decisions could be based on. So, the discussion was focused on how to generate necessary information on further decisions. The participants decided that there should be joint research on:

- Total air Pollutant Load Management (TPLM) system
  Establishing airshed modeling for air quality management districts

TPLM for automobile emissions
TPLM for industrial facilities
Pilot projects for TPLM for industrial facilities in 2004

- Energy price system
- Financial incentives for DPF installation, Zero-, or low-emission vehicles, and ultra low sulfur content diesel fuels.

The group decided who would sponsor each research project and who would participate in the research (Table 9-3).

Table 9-3. Joint Fact-Finding in the Task Force

Joint research	Participants and finance
TPLM system	• Research institutes nominated by the MOE, the MOCIE, and the MOCT • With USD 0.4 million sponsored by the MOE • For one year
Energy price system	• Research institutes nominated by the MOE, the MOCIE, and the MOCT, and the MOF • With USD 0.2 million (equally sponsored by the MOF, the MOCT, the MOCIE, and the MOE) • For ten months
Financial incentive for DPF installation, Zero-, or low-emission vehicles, and ultra low sulfur content diesel fuels.	• Research institutes nominated by the MOE, the MOCT, and the MOCIE • With USD 0.1 million by sponsored by the MOE • For one year

Clearly, the Task Force did make a serious effort at joint fact finding.

The Second plenary meeting (June 27, 2003)

Participants decided at the first meeting that the sub-committee for the Special Act would meet three times, on June 13, 16 and 23, 2003, to build a consensus on provisions of the Special Act and that it would submit a discussion report to the Second plenary meeting on June 27, 2003.

During the three sub-committee meetings, the sub-committee members, who consisted of government officials, reviewed a total of 51 provisions of the Special Act. They reached final consensus on 25 provisions without dispute and on 23 provisions after negotiations. However, they reported that they did not reach consensus on three provisions associated with the TPLM system for industrial facilities (Table 9-4).

Table 9-4. Three disputed provisions for TPLM system in the Special Act (reported from the Sub-Committee)

Issue	The MOE	The MOCIE	The OGPC
TPLM air pollutant	NOx, SOx, and PM_{10}	NOx	NOx, SOx, and PM_{10}
Types of facilities	Type 1-3 facilities	Only power plants belonging to Type 1 facilities	Type 1 facilities first, then review the possibility of application to Type-2 and 3 facilities
Implementation schedule	January 2007	After five years from the implementation of the Act. President will decide the year	Type 1 facilities: 2008 Type 2, and 3 facilities: later

Note: Type-1 facilities (>80 tonnes per year); Type-2 facilities (20 ~ 80 tonnes per year); Type-3 facilities (10 ~ 20 tonnes per year)

Type-1 and Type-2 facilities accounted for 99% of the total emissions of SOx and NOx in 2000.
Type-1 facilities emitted 99% of the total PM_{10} in 2000.

During the sub-committee meetings, the MOCIE continued to argue that SO_x and PM_{10} should not be part of the TPLM system, because the level of SO_x concentration was already satisfactory and there was no case of TPLM system for PM_{10} in the world. The MOE responded to the MOCIE by saying that SOx should be controlled because SOx could affect PM levels through conversion to sulfate and that, given the serious PM level in Seoul metropolitan area, PM should be included in the TPLM system. The MOE added that it had already postponed its plan to implement the TPLM system from year 2005 to January 2007 in order to give industries lead time to prepare for the new system.

The OGPC mediated between the two Ministries and suggested a compromise option (Table 10-4).

Conflict between environmental groups and business associations in the Task Force

The dispute between the MOE and the MOCIE in the sub-committee was transferred to the plenary meeting, and magnified by the members from environmental groups and business associations. The environmental groups supported the MOE and the business associations lined up with the MOCIE (Table 9-5).

Table 9-5. Tension between environment and development

Issue	The MOCIE	Industries	Environmental groups	The MOE
TPLM air	NOx	NOx	NOx, SOx, and	NOx, SOx, and

pollutant			PM_{10}	PM_{10}
Types of facilities	Type 1 facilities	Type 1 facilities	Type 1-3 facilities (Apply the result of joint research for the Type 2 and 3)	Type 1-3 facilities
Implementation schedule	2008	2008	2007 (Apply the result of joint research for the Type 2 and 3)	2007

After negotiation during the first plenary meeting, parties agreed that the TPLM system would include NOx, SOx, and PM_{10} as air pollutants. In terms of implementation time and types of facilities, they struck a balance between 2007 and 2008 by agreeing to implement in July 2007 for only type-1 facilities, and later discuss the application of TPLM to type-2 and -3 facilities based on the joint research.

MOE officials and three leaders from environmental groups who had participated together in the Joint Commission and the Environment Commission built very strong relationships with the others. According to the MOE officials, this was a negotiation strategy:[295]

> *"It was a kind of role playing. Before we got to the plenary meeting, we had a caucus in advance. A member from the environmental group should be very harsh and stringent, and tough on every issue and he should say that the Special Act should be intensified more. And another member from the environmental group suggests reasonable options, which actually are favorable to the MOE."*

[295] Interview with Mr. Park, Kwang-Seok, and Mr. Ahn, Sae-Chang, at the MOE on June 21, 2004.

The third plenary meeting (July 3, 2003)

On the third plenary meeting, members of the Task Force reviewed all provisions discussed that far, and decided to reach a consensus agreement of the Special Act on July 3, 2003. The MOE announced that it would send that consensus agreement proposal to the RRC and then to the Ministry of legislation for its review, and then submit it to the National Assembly in September.

D4: Communication between representatives and constituents

It could be said that industries and business sectors were constituents of the MOCIE and the MOF. The environmental groups were clearly on the same page with the MOE. However, it is not clear that business associations such as the FKI and the KCCI could fully represent constituencies including many individual industries and businesses, especially given the short time the associations had to prepare. In practice, the KCCI submitted a report with other industries regarding their own policy positions in June 2004.

D2: Fair management of the process

According to interviews with members of the Task Force, the management of the process by the chairs was generally fair. They commented that they already knew the other participants and that everybody had sufficient sophistication to control their attitude and

emotions.[296]

Dispute Resolved?

Officially, the consensus agreement was pronounced by the government on July 25, 2003. However, the agreement still had to be scrutinized by the various administrative groups. First, the agreement was reported to the Cabinet meeting, then to the RRC, then to the Ministry of Legislation, then to the Deputy minister meeting, then to another Cabinet meeting, and then to the Committee meeting of the National Assembly, and finally to the plenary meeting of the National Assembly for passage. Reviewing the government documents at each stage of administrative process reveals that the MOCIE and business associations continued to argue against the Special Act throughout this process. One representative from a business association pointed out that he did not agree to the so-called consensus document, which means the consensus was not achieved unanimously. Another interviewee confessed that he continued trying to influence high-level officers in the government to modify the energy price system. Bones of contention lay everywhere.

There were several revisions after the review of the RRC and at the last stage of the Vice Ministerial meetings. However, there was no more difficulty surrounding the revisions among environmental groups and the MOE. Finally, the Special Act was enacted at the National Assembly on December 31, 2003.

---

[296] In practice, in local settings where residents or general public were involved as stakeholders, there were many more attitude problems.

Chapter Ten

Analysis and learning

Analysis

Before applying the new analytic framework (Figure 2-3 and 2-4 in Chapter 2), it is important to recall the two questions with which this study began: ***(1) Why did the Joint Commission and the Environment Commission fail to resolve the disputes on which they were focused, even though with consensus was reportedly reached? (2) How, then, was the Task Force able to resolve the same dispute?***

Definition of failed dispute resolution

To define a failed dispute resolution effort, it's important to keep several criteria in mind: the four cited by Susskind (1987) are fairness (in the eyes of the stakeholders), efficiency (from the standpoint of an independent analyst), wisdom (in light of the information available at the time) and stability (in terms of the willingness of the parties to follow through their commitments).

To determine whether these four criteria were met, I solicited the opinions of the parties who participated in these negotiations.

The extent to which these three cases of consensus-building met three of the four criteria (fair, efficient, wise, and stable) (Table 10-1) was determined based on the results of interviews, news articles, and government records.

Table 10-1. Comparison of the cases according in light of the four criteria of successful dispute resolution

Criteria	Joint Commission	Environment Commission	Task Force
Fair[297]	Partly fair (only in terms of opportunity to talk and access to data)	Fair (only in terms of opportunity to talk and access to data)	Fair (only in terms of opportunity to talk and access to data)
Wise[298]	Partly wise	Became wiser	Became much wiser
Efficient[299]	Uncertain	Uncertain	Uncertain
Stable	No	No	Yes
Judgment	**Failure**	**Failure**	**Not a failure but not necessarily successful?**

It is interesting to note that all three efforts were successful in generating apparent agreement very quickly. The Joint Commission announced that it had a consensus agreement on August 19, 2002. The Environment Commission formulated its agreement on

[297] The questions were asked only for the participants in the process. So, a party, excluded from the process, might think the process was unfair.

[298] It is not certain that the experts, who participated from the Joint Commission, were the ones who had the most relevant and renowned expertise on the issues. But, the experts in the commissions were people who already had ties with the MOE or industries through joint projects before. What is certain is that the data used in the Joint Commission were mostly produced by the MOE. In the next Environment Commission and the Task Force, additional experts joined and presented their expertise for mutual learning process. Thus, the knowledge base became much deeper and broader, as processes went on from the Joint Commission to the Task Force.

[299] In terms of efficiency of the outcome, I cannot assess the consensus agreement was the best one in achieving the policy goals of urban air quality management, as well as achieving economic development by selling diesel passenger cars in South Korea. And, in terms of the speed of decision-making, it took only one month for the Joint Commission and the Environment Commission to make a consensus agreement. However, I cannot say that a fast decision is always good.

February 14, 2002, and the Task Force declared that it had reached consensus on July 24, 2003.

However, the aftermath of each agreement was similarly problematic. These so-called "consensus agreements" were challenged by other stakeholders who were not involved and even by some of the parties to the process. The participants, who spent their energy and time building consensus, were very upset about these challenges. The disputed issues, though seemingly, kept re-emerging. Rifts began to appear in the relationships among the parties and between stakeholders during the subsequent deliberations. Critical decisions were delayed, confusing some stakeholders and the general public and threatening various financial interests.

The consensus agreement decision reached by the Task Force was revised a bit after it was submitted to the government. However, there was no further apparent turmoil even though hidden from the public, industry stakeholders were raising concerns about the consensus agreement. Thus, while the Task Force was hailed as a successful example of collaborative governance by the President, the media, it cannot be considered 100% successful. It was, nevertheless, far more successful than the first two efforts.

Pathology of Consensus-building in regulatory process?

Some of the problem discussed above are mentioned by certain scholars as a reason for arguing that consensus-building is not an appropriate approach to forumlating

regulatory policy (Coglianese, 2001). They regard the problem of holding agreements together as a pathology associated with consensus decision-making. Basically, their view is that public officials often make unrealistic promises about the extent to which negotiated agreements will shape public policy decisions. Government officials must formally enact and implement whatever agreements are worked out. In so doing, policy may change – even slightly – from what the parties thought they had agreed.

These scholars say that in reality, maintaining a consensus throughout the final steps of policy making can prove difficult. After consensus is forged, other actors -- not party to the agreement -- may seek to reshape the agreement (Kagan, 1997). They go further to say that, given this reality, an increased reliance on processes that aim for consensus may well undermine trust and increase cynicism toward the policy making process.

Those scholars are right in terms of the reality of the policy making process. However, they do not provide sufficient explanation for how that reality comes about, and why "others" have the right to reshape agreements reflecting the wishes of all the relevant stakeholders. Nor do they suggest a way to correct this dynamic.

Part of my objective is to understand why this reality persists by analyzing the first two cases.

Clarifications

Two things must be noted. These three cases of attempted consensus building are not independent. The second involving the Environment Commission was affected by the first the Joint Commission. The third case under the auspices of the Task Force was affected by the second case. While the issues the participants faced during each process were different, all were linked. Some parties were present throughout all three cases, while others were added or subtracted in one of the cases. Thus, it is not appropriate to compare the three cases as if they arose from the same initial conditions.

Second, in this treatment "consensus-building efforts" does not refer to the very sophisticated "consensus-building" procedures theorized in the dispute resolution field by scholars (Susskind et al., 1999). The parties in Korea did not have an opportunity to absorb the theory and learn this approach to the practice of "consensus-building." Then, my analysis is not an attempt to explain why they succeeded or failed in light of the more sophisticated "consensus-building" models developed by professionals in the public dispute resolution field, although I do use these models for certain comparisons.

Case Analyses

The question of why consensus-building failed twice before a qualified success was achieved is very difficult because more than one or two simple factors were involved. Indeed, a layer of factors contributed to these outcomes. The same factors are not equally influential in consensus-building cases even under the most controlled circumstances. For example, given the same negotiation simulation exercise, different tables will produce different outcomes, because people are different in terms of their aspirations, attitudes, and personalities.

This analysis applies ***a step-back method*** to analyze the factors when consensus was announced, the factors during deliberation, and the factors for the initiation of consensus building in each case.

What is consensus or "social consensus?"

The participants in each consensus-building effort declared at the end that they had reached consensus or "social consensus." In the Joint Commission, the MOE sent a document to the media on June 24, 2002 without asking the opinion of Hyundai (Kia). The media started to broadcast that a consensus had been reached. The content of the document was shown to the public as if it were a final governmental decision. This document, lacking the signature of the automakers, caused a considerable problem later on. Also, the MOCIE in the Joint Commission signed the consensus agreement in August 2002 on the condition

that the MOE would follow the RRC's decision. Then, the MOCIE requested the RRC to review the consensus agreement. The RRC's decision to correct the consensus agreement was the main reason for the environmental group breaking away from the Joint Commission.

In the case of the Environment Commission, when the Ministerial meeting for Economy watered the consensus agreement down a little bit, the Committee members were upset because the Ministerial meeting did not support the social consensus that had been reached between the private and public partners. The media also criticized the government for belittling "the social consensus."

What was the "social consensus" in this case? Consensus was achieved only among participants in the Environment Commission. In theory, consensus hinges on the full representation of all relevant interests. If such representation was not fully secured, the consensus is not likely to be complete (in the sense of belonging to the total society). Even though the MOE communicated with industries and other Ministries during the Environment Commission, these groups were excluded from the deliberation processes in the Environment Commission. It cannot be said that their interests were fully and fairly represented.

The Task Force also announced a consensus agreement. But this time, the agreement document did not have the signatures of all parties to the Task Force. When interviewed, the representatives of industries at the Task Force did not say they agreed to the consensus agreement proposal. They continued raising problems through the next steps of the decision-making processes, such as at public hearings convened by the National Assembly.

Strictly speaking, the Task Force agreement was not a consensus in that all parties could not say they could live with the agreement.

Clearly, there is ***a problem in defining and announcing a consensus***. If they had a genuine understanding of the meaning of consensus, they would not have announced it when they did.

Why did they believe that they had reached consensus? Let's find the answer by stepping backward.

Deliberation factors in consensus building

This section offers an analysis of the deliberation process in each consensus-building effort prior to the announcement of a consensus. My objective is to determine how the operation of each factor affects the outcome of the processes.

D4: Communication between representatives and constituents

D3: Joint Fact-Finding

D2: Fair management of process

D1: Setting ground rules

D4: Communication between representatives and constituents

This factor is important because representatives (or, negotiators) should represent the interests of their constituents in a negotiation. If those representatives are not adequately

representatives, or those negotiators cannot communicate with their constituents or clients effectively to discover their real interests, problems can arise. Constituents may not acknowledge the legitimacy of the consensus agreement and blame their negotiators. The consensus agreement may not be stable. This is why representatives should be selected by stakeholder groups themselves, rather than by a convener. The importance of the communication factor is based on the assumption that there is appropriate representation of interests.

There was the clear case of this problem in the Joint Commission. Hyundai's negotiator was fired by the CEO, right after the MOE announced that consensus had been reached. The controversial issue was whether the "Galloper," an old model of a diesel RV should be terminated or not. The agreement did not mention the "Galloper" explicitly, but the media revealed that it was the model which would be terminated according to the terms of the agreement.

Hyundai's negotiator at the Joint Commission was unsure about this issue. He did not fully realize the interests of the Hyundai CEO. While this may be taken as a communication problem within the company, it was actually more a cultural and organizational issue. The Chaebol, a large conglomerate, is a distinct system of business and industry interests in South Korea. The CEO is very powerful and the ultimate source of all decision making authority. The negotiators cannot get complete mandate from the CEO, unless they know his wishes exactly.

In the Joint Commission, the negotiators from Hyundai did not make the right decision. To their credit, they said at the time that they could not make a commitment on

their own and needed to check with a higher ranking person.

In any case, while the MOE should not have announced the consensus agreement to the media, the miscommunication between the negotiator and the CEO of Hyundai caused the problem. Thus, in this case, the difficulty was organizational in nature. This was not, however, a decisive factor in the failure of the Joint Commission.

D3: Joint Fact-Finding

Joint fact finding is very important, particularly in resolving disputes involving scientific and technical evidence. Without joint fact-finding, the parties are likely to utilize their own research to promote their own interests, leading to a fruitless "battle of the experts."

However, joint fact finding requires an expenditure of time and money with the right sponsors. The right users can be secured by the full representation of interests. Time, money, and sponsorship are, in turn, affected by other factors. Each case presented a unique combination.

In the Joint Commission, the participants needed to know how much emissions would be produced if the manufacturing three diesel RV models were allowed continuously after July 1, 2002. Based on that calculation, Hyundai (Kia) prepared an emission-offset plan to satisfy the environmental groups and the MOE. These calculations required a few assumptions about the transition rate from diesel RVs to LPG vehicles if diesel RVs were terminated.

The modeling or calculations were done by the MOE, which used data from the

automakers. The Alliance and the MOE made assumptions which favored their own interests in that calculation.[300] Hyundai was not satisfied with those assumption, but tolerated them. The Alliance did not trust the data and assumptions Hyundai was using in its calculation of potential emission reductions from its emission-offset plan. For example, when Hyundai maintained that it could reduce the emissions by conducting free emissions inspections for diesel vehicles, the Alliance distrusted the data. Even the experts nominated by the Alliance and industries respectively were not neutral but functioned more like stakeholders. In this case, joint fact finding was not really conducted properly. However, the result of modeling even with some distrust did not generate a decisive impact on the outcome of the process. Hyundai and the Alliance ignored those uncertainties in their quest to make a decision. Why?

One reason was that neither side had enough time to design the research carefully together and not enough money to do it properly. The other reason was they reduced the time available by poorly managing the process. They should have reached a decision to conduct joint fact-finding on the issue of diesel RVs much earlier, but wasted time on other less important issues.

In the Environment Commission, the participants needed a much more complex scenario analysis. The scenario analysis was done by the MOE with the help of its own experts. The analysis included many assumptions, made by mainly the MOE and the Alliance.

---

[300] They assumed that all consumers, if three diesel RVs were terminated, would buy LPG RVs instead of those three diesel RVs. But, Hyundai argued that given the cheap diesel fuel, consumers would buy another diesel RVs, not LPG RVs.

While the Korea Gallup group conducted a market poll of consumer choice regarding automobiles under certain fuel price ratios, the questions were adjusted by the Alliance and the MOE. Later, a staff person from Hyundai confessed that there was a problem with the questions themselves. In this case also, the MOE mostly conducted the analysis, and then presented it to the participants for their feedback. However, methodological vagaries did not make a big difference in the outcome.

The Task Force had enough time to consider the topics for research, select research institutions, and find sponsors and money to pay for it. In general, the joint fact-finding process in the Task Force deliberations was pretty good.

D2: Fair process management

Judging the fairness of a process involves many considerations. All the groups who wanted to participate should be given an adequate chance to do so. All parties should also have been given access to the technical information they needed. Everybody should have had an opportunity to express their views. There should be a means whereby a due-process complaint can be heard at the conclusion of the negotiations (Susskind, 1987). Examples might be that a convener is from a certain organization associated with certain interest, or that there are too many participants from certain groups.

For the purposes of this study, the only aspects of this factor studied were 1) the opportunity each party was gotten to express their views and 2) access to technical information. My objective is to determine whether this factor affected the failure of the consensus-building efforts.

Surprisingly, most interviewees answered that they were given due respect as participants and had ample opportunity to raise issues and express their views. In other words, there was no systematic attempt to restrict opportunities to speak during deliberation. However, when a staff person from Hyundai raised a question about the outcome of the scenario analysis, the MOE officials scolded him. That was not fair, but Hyundai did not question it.. Why? Because the MOE is a regulator and Hyundai is a regulatory target. Still, a person-to-person relationship is shaped by the power relationships between the regulators and regulated.

D1: Ground rule setting by participants

In none of these cases did participants help to determine the ground rules as consensus building theory prescribes. They discussed who would be the chair, when they would meet, what they should talk about and so forth. They did not, however, discuss how to control their attitudes during deliberation, or how to deal with the media. However, it is interesting to note that in all three cases, the decision rule was to find consensus, especially a unanimous one, rather than to settle for a majority vote.

The Alliance continued to hold street rallies while their leaders were negotiating in the Joint Commission. This strategic choice should have been addressed in setting ground rules. In general, the lack of ground-rules did not make a big impact on the outcome of the process.

These constitute the four deliberation factors in a consensus-building process for each of the dispute resolution attempts (Table 10-2). The next section covers initiation.

Table 10-2. Analysis of deliberation factors in each process

Deliberation factors	Joint Commission	Environment Commission	Task Force
D4: Communication between representatives and constituents	**Hyundai's problematic communication**	Nothing special	Nothing special
D3: Joint Fact Finding	Poor	So so	Good
D2: Fair process management	Good	Good	Good
D1: Ground rule setting by participants	No	No	No

Initiation factors in consensus building

Initiation factors are more important than deliberation factors in building consensus, because those initial conditions set the tone for the whole process. This study identifies seven factors associated with the initiation of consensus building:

I7: Time pressure and deadline

I6: Financial support

I5: Participation by organizations with implementing power

I4: Multi-clear issues

I3: Inclusion of a full range of stakeholders

I2: Conflict Assessment

I1: Use of (a) neutral skilled facilitator(s)

I7: Time pressure and deadline

Time pressures or the existence of deadlines for the dispute resolution help participants spend their time and resources more effectively. Without a deadline, parties may delay or fail to focus on reaching a settlement. However, a meaningful and effective deliberation requires enough time to hear the concerns of stakeholders and most of all, to generate and review the necessary information on which decisions can be substantiated. The effect of the existence of a deadline is maximized when the participants can figure out the consequence of reaching no agreement by the deadline. In other words, if they have to face a worse outcome than they would face with no agreement, they will try to make a decision before the deadline. In this case, it may be assumed that the participants know their BATNA (the Best Alternative to No Agreement).

In analyzing this category, it is possible to determine whether there were deadlines (or pressure to reach consensus in a timely manner) and whether the deadline exerted a positive or negative influence. In each case reviewed here, a deadline did exist.

The deadline for the Joint Commission was set collectively as the end of June 2002 at the second meeting, which was held on May 31, 2002. The reason for the June 30 deadline was the existence of an administrative schedule regarding the regulation of reclassification of diesel RVs, which would become effective on July 1, 2002.

However, the importance of the deadline was not felt equally among the parties. If Hyundai (Kia) could not get the regulation amended before the deadline, their three diesel RVs would be dropped from the manufacturing lines. The MOE actually wanted to finish this issue as soon as possible and move to a discussion of diesel passenger car issues. Thus,

Hyundai (Kia) considered the deadline most seriously. The MOCIE, which always supported Hyundai (Kia), also regarded the deadline very seriously. For environmental groups the deadline was not so important. The deadline did not stimulate them to focus on quicker decision making.

From the second meeting (May 31) to the deadline (June 31), only one month was available to make a decision on diesel RVs. However, the decision agenda from the first meeting was set as broadly as possible. Environmental groups, which did not share the importance of the deadline for diesel RVs, wanted to view the issues very broadly.

For the Joint Commission, there was too little time for consensus building before the deadline. What was worse, the importance of the deadline was not equally applied to the participants, which caused ineffective discussion. Not until the third meeting did the parties start negotiation on the diesel RVs, because environmental groups did not want to talk about that issue first. In this case, the importance of a deadline rather than the timing should have been agreed upon first.

However, while the deadline factor worked against effective negotiation and decision making, it cannot be said that this factor was decisive in the failure of the Joint Commission. Even with enough time to deliberate on the part of the environmental groups for the significance of the deadline for Hyundai, and Kia, the Joint Commission would have failed for other reasons.

The Environment Commission also had a deadline for consensus-building. The deadline was not set by participants who gauged the necessary time and circumstances, but by the Ministerial meeting for Economy in December 2002. The Ministers decided that any

decision should be made by February 15, 2003. The date was chosen to keep the timing of the decision within the current administration.

The Environmental Commission, which kicked off on January 11, 2003, had only one month to make any progress. This was clearly insufficient time to have experts produce meaningful scientific and technical information on which effective decisions could be based. However, incredibly, the committee members collaborated for more than ten hours a day for ten days and reached agreement. The deadline forced them to spend their energy and time building a consensus. Unlike the Joint Commission, the parties agreed upon the importance and meaning of the deadline. They needed a consensus to lend legitimacy to their final proposal.

Lastly, the Task Force also had only one month for the sub-committee members, who were all government officials, to review all 51 provisions and submit their opinions to the plenary meeting. While these government officials appeared to be under tremendous time pressure, they had, in fact, already coordinated for half a year inside the government. The deadline was also politically determined, because they wanted the Special Act to be enacted at the National Assembly by the end of 2003.

All three cases shared two similar characteristics in terms of deadline. First, parties had only about one month to make a decision. Second, the deadline was set not by participants, but was determined by outside conditions, such as an administrative schedule (the Joint Commission), or political considerations (the Environment Commission and the Task Force).

I6: Financial support

All three consensus-building efforts began without a special budget or funding. The miscellaneous costs of meetings were covered by the MOE. Also, some contracted research was funded mostly by the MOE. The environmental groups did not have enough money to contract any research, nor did they receive any financial support from the MOE for participating in the Commissions. However, financial support factors did not make much difference in any of the three cases.

I5: Participation by organizations with implementing power

The participation of parties with implementation power can be a key to successful initiation and maintenance of consensus building, because the parties must believe that their agreement will be implemented and that their participation will be worthwhile. The most significant variable in achieving implementation appears to be whether those with the authority to enforce the decision support the process (Susskind and Cruikshank, 1987). If the participating authority has options other than consensus building to secure its interests, the process may be at risk.

Because it was the most problematic feature of the Joint Commission and the Environment Commission, this initiation factor may be the most decisive in affecting the outcome of dispute resolution in this case study. Lack of clear implementation power rendered the first two consensus agreements unstable. The proposals continued to be challenged and changed by the government, leading to a proliferation of disputes.

The MOE had implementing power over decisions on the classification of diesel RVs,

and on the emissions standards for new diesel passenger cars. However, the decisions on fuel price and budgets for the Special Act, which the MOE and the environment groups wanted in return, were under the jurisdiction of the MOF and the MOCIE. Thus, even if the MOE made decisions on the diesel passenger cars, if it did not get concessions from the MOCIE and the MOF, no trade-off could be accomplished.

The MOCIE and the MOF sent their officials to the first meeting of the Joint Commission, but no MOF official participated after the second meeting. The MOCIE did not accept the validity of a decision-making process that included environmental groups. In other words, neither the MOCIE nor the MOF accepted the concept of a consensus-building process from the beginning. In such a process, participation would not mean just sitting in a chair; it would mean participation with the intention to negotiate in good faith. Why was the MOCIE unwilling to participate in the Joint Commission?

There could be two answers. The first is that the MOCIE did not acknowledge the right of environmental groups to make decisions together with a government body. The environmental groups argued that the MOCIE did not know the meaning of New Governance in which stakeholders (citizens) share the decision-making power with the government. That explanation seems to be appropriate, because there was controversy even within the MOE over bringing the environmental groups into the consensus-building process. For most officials, participation of stakeholders in decision-making meant hearing their concerns on announced government decisions, not sharing decision-making power with them.

The second explanation is that the participation of environmental groups meant to the

MOCIE that the Joint Commission's decision would not favor the MOCIE's interests. The MOCIE thought that the MOE and the environmental groups were on the same page in every issue and that together they would dominate the process. Thus, the MOCIE believed that the decision-making process unbalanced against them. In this case, the MOCIE, as a party to negotiation, could think of other options to secure their interests outside the decision-making venue.

The BATNA (Best Alternative to No Agreement) concept is useful in this case. If a party can secure its interest in other decision-making venues, it is less likely to buy into an existing decision-making process they think is stacked against them. MOCIE, Hyundai (Kia) and the MOF (Figure 10-1) had access to other aspects of the administrative process (Figure 10-1) in South Korea's complex system.

The consensus agreement from the Joint Commission was a just proposal, not a final government decision. Any government decision associated with regulations had to be reviewed by the RRC (Regulation Reform Committee), where economic development considerations dominated decision making. The Minister of MOCIE is one of the two chairpersons of the RRC. The MOCIE knew it could influence the consensus agreement at the second level of the RRC.

Thus, a combination of the factors explains why the MOCIE did not like the Joint Commission from beginning:

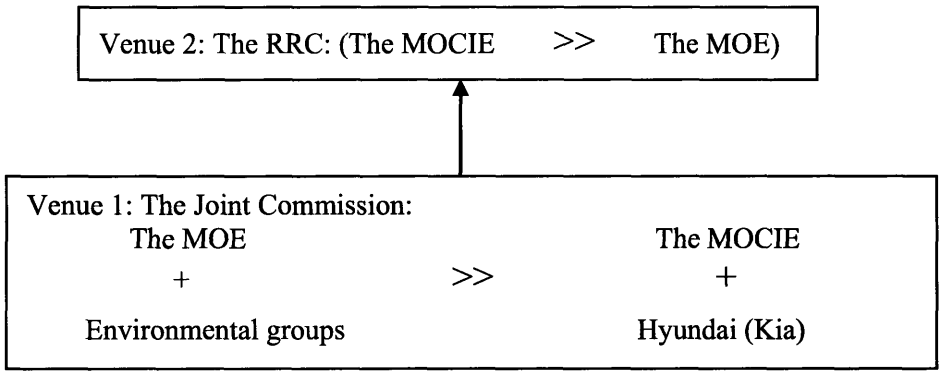


Figure 10-1. Multi-level decision-making and power relationships

The MOE and the environmental groups believed the consensus was a voluntary agreement rather than the government regulation. Thus, they felt betrayed when the MOCIE and Hyundai resorted to the RRC. That was the most influential factor in the break up of the Joint Commission.

The Environment Commission agreement also suffered from an unstable consensus. In this case, the MOCIE, the MOF, and industries were excluded by the environmental groups for several reasons. The MOE was supposed to coordinate with the MOCIE, the MOF, and other industries, but the communication was not effective. The MOE simply delivered the concerns of the MOCIE and the MOF to the Environment Commission. Even if there had been coordination inside the government before the MOE let the environmental groups know the concerns of other Ministries and industries, no negotiation or consensus building took place between the ends of spectrum. There was merely talk, conveyed through the MOE.

Because there was no consensus among the MOE, the environmental groups, the

MOCIE, the MOF, and industries, the consensus agreement from the Environment Commission could only be unstable. Because the MOE and the environmental groups dominated the Environment Commission, the consensus agreement clearly represented their interests over those of the other stakeholders.

What was worse, there were multi-level decision making venues (Figure 10-2), for example, the Ministerial meeting for Economy. The name of the meeting itself suggests its business was economic development. Given their mandates, the MOCIE and the MOF could be more powerful in such a setting. New administrative personnel came into office during the deliberations of the Environment Commission, but the institutional structure of multi-level decision making was not affected by that change.

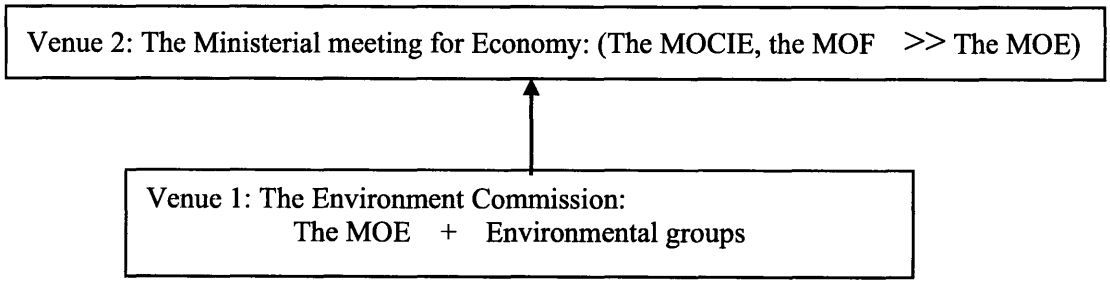


Figure 10-2. Multi-level decision-making venues and power relations in the case of the Environment Commission

The action of the Ministerial meeting for Economy on March 27, 2003 was a critical point in the fate of the Environment Commission. It caused the MOE and other members of the Commission to take their grievances out of a consensus-building relationship and into

the stream of conventional adversarial politics.

The Task Force included all government agencies from the beginning. The initiation of the Task Force was proposed by the MOF. While the Joint Commission and the Environment Commission happened outside the government and proposed their decisions to the government, the Task Force was organized inside the government. There was a built-in willingness and ability to negotiate among the Ministries. It is interesting to note that Task Force proposals had to pass through even more decision making venues (See Figure 9-1) than did the proposals of the preceding commissions. For the consensus draft of the Special Act to be enacted at the National Assembly as the final Act, it had to pass more than 25 reviews in the same number of decision-making venues. Even though several provisions were adjusted during those steps, there were no further disputes.

This initiation factor in was the main element leading to the failure of consensus building at the Joint Commission and the Environment Commission.

I4: Multi-clear issues

If multiple issues are available for negotiation parties to trade off, agreement is more likely. However, the correct selection of issues is more important than the number. If parties to a negotiation cannot find any issue critical to their interests among the agenda items, the negotiation is not likely to produce an agreement. Thus, it is important to figure out what issues stakeholders will consider seriously. Without this information, decision agenda setting is not effective. The identification of such interests is a very important task in initiating a consensus-building process. That factor can be explained in discussing

conflict assessment.

Hyundai (Kia) wanted an agreement that would allow them to keep selling their three diesel RVs, and get approval from the MOE to sell diesel passenger cars. The MOE wanted to secure its countermeasures to check the increase of the emissions from the three diesel RVs and diesel passenger cars. Such measures included the adjustment of fuel prices and the enactment of the Special Act. The Environmental groups also wanted to secure the countermeasures in order to keep air quality from becoming any worse. This trade-off was basically the backbone of the negotiations from the initiation of the Joint Commission to the conclusion of the Task Force.

These considerations dominated the agendas of each consensus-building effort analyzed in this study. However, this assessment does not focus on how to manage agenda-setting process. For example, an important question might be which issues to address first. The original purpose of the Joint Commission was to reach a consensus on comprehensive issues related to diesel vehicles. In fact, the name of the Commission was "the Joint Commission to resolve the problems associated with diesel vehicles." So, the broad range of participants focused on that range of issues from their first meeting on. However, as the meetings progressed, the Joint Commission became a fixated on the issue of diesel RVs, setting aside the comprehensive issues associated with diesel passenger cars. As explained above, that's because the issue of diesel RVs was very urgent and impending. It might be argued that if there had been an effort to share the issues raised by each stakeholder in advance a better process could have been structured allowing the group to focus on diesel RVs first and then move on systematically to other issues. Had this been the case, the Joint

Commission might have produced a more satisfactory outcome.

I3: Inclusion of a full range of stakeholders

This factor also is not about the number of participants, but the inclusive representation of as many as interests as possible in a public dispute. Inclusion should be made by voluntary action in good faith. This factor also hinges on the conflict assessment, which will be addressed in next section.

In the case of the Joint Commission, the consensus agreement was about the issue of diesel RVs. The relevant stakeholders to the issue were Hyundai (Kia), the MOCIE, the MOE, and environmental groups. Other automakers, oil industries, and gas industries, and the MOF were not much interested in the issue of termination of three diesel RVs manufactured by Hyundai (Kia). However, they participated in the Joint Commission from the first meeting to the last meeting, because the purpose of the Joint Commission was to discuss the issues associated with diesel passenger cars. Such issues included the fuel prices in which the oil and gas industries had major stakes.

In a nutshell, men among this broad range of stakeholders merely observed the negotiation among Hyundai (Kia), the MOCIE, the MOE, and the environmental groups.

In terms of the will to participate in the Joint Commission, industry sectors were not invited but ordered to participate, because they were regulatory targets of the MOE. They did not have enough time to prepare for the negotiation. The environmental groups, however, were willing to participate in the Joint Commission but not with a good faith to build a consensus but for another, hidden reason. They also did not have enough time to

prepare for a negotiation or consensus-building process. There was only participant who really wanted to build a consensus was Mr. Koh from the MOE, the chairperson presiding over the proceedings. Also, even though the MOCIE and the MOF were included in the list of participants, they did not want to negotiate with environmental groups. Furthermore, while 34 environmental groups had created a coalition in a very short time, they failed to include the KFEM, one of the most influential environmental groups in South Korea. Later, the KFEM criticized the activity of the Joint Commission, which damaged its legitimacy.

As a rule, while the Joint Commission proposed having a large number of participants, approximately 26 people from a broad range of stakeholder groups, the quality of their participation was not at the level considered optimal by consensus-building theorists.

Industries and other governmental agencies were not even included in the Environment Commission. However, following the failure of the Joint Commission, there was considerable discussion on how to structure the new effort. Despite the option of including all the stakeholders including the government agencies and industry sectors, the option to exclude them was proposed and supported by the environmental group, in particular, the KFEM. This exclusion was justified, in their view, by the malfeasance of the MOCIE and Hyundai who tried to influence the RRC to overturn the agreement reached by the Joint Commission. Thus, in terms of inclusion, the Environment Commission scores very low.

The Task Force collaboration included 15 members. The important feature of this group was the participation of all relevant government agencies. This was very important in securing stability of the decision after the consensus.

Across the three cases, the selection of interests and stakeholders were made by the MOE at the Joint Commission, by the MOE and environmental groups at the Environment Commission, and by the MOF, and the MOE at the Task Force, respectively. However, all of these selections were made very quickly and not based on a thorough assessment of conflict.

I2: Conflict Assessment

To make a long story short, there was no conflict assessment, as the theory of consensus building defines it. The assessment of conflict was made in separate meetings between the MOE and stakeholders, including industry stakeholders, environmental groups, and other government agencies, where the MOE could hear their concerns. In addition, the MOE used the public forum to figure out how things were perceived by other stakeholders. The public media played the role of delivering the concerns of each stakeholder to the other stakeholders and to the general public. So, the MOE believed that they knew what the controversial issues were based on the information garnered through such mechanisms.

However, while the MOE heard and knew all stakeholders' concerns, the stakeholders could not know each other's concerns. They had to puzzle them out during the negotiation process, which made negotiation very difficult given the very short time period of one month for each process.

The most important case before the Joint Commission revolved around the legitimacy of the voluntary agreement or decision-making mechanism based on New Governance. The environmental groups cherished their equal participation with government officials as an

important interest and concern from the beginning (Table 10-3). If the MOE had made an effort to address this difference between the MOCIE and the environmental groups at an earlier stage of the Joint Commission, the MOCIE might not have deserted the process and sought the alternative channel of the RCC review.

Table 10-3. Conflict assessment matrix for Diesel Vehicle Regulations and The Special Act for Seoul metropolitan air quality

Issue **Stakeholder**	**Manufacturing Diesel RVs**	**Diesel Private vehicles**	**Trilateral contract agreement**	**Emission reduction from other diesel vehicles**	**Adjustment of fuel price (Gasoline: Diesel: LPG)**	**Diesel Fuel quality improvement**	**Legislation of the Special Act**
KAMA	★	★	•	•	•	+	+/
Hyundai (KIA)	★ ★	★★ **2004 Euro-3** **2005 Euro-4**	• •	• •	**100:75:60**	+	• •
Daewoo Motors	--	-- **until 2006**	•	•	**100:75:60**	+	•
Ssangyong	--	-- **until 2006**	•	•	**100:75:60**	+	•
Samsung Motors	•	•• **2005 Euro-4**	•	•	**100:75:60**	+	•
LG Oil	• •	--	• •	• •	★★ **100:75:60** **no lower LPG**	--	• •
SK Oil	• •	• •	• •	• •	★★ **100:75:60** **no lower LPG**	--	• •
S-Oil	•	•	•	•	•	--	•
Hyundai Oil	•	•	•	•	•	--	•

SK Gas	•	**+/lower LPG price**	+	+	★★ **100:75:44-47**	•	•
LG Gas	•	**+/lower LPG price**	+	+	★★ **100:75:44-47**	•	•
MOFAT	★	★	•	•	•	•	•
MOCIE	★	★	★--	•	**100:75:60**	•	--
MOCT	•	•	•	•	•	•	--
MOFE	•	•	•	•	**100:75:60**	•	•
MOE	+/	+/ **2005 Euro-3 2005 Euro-4**	+	+	★★ **100:85-95:47-55**	+	★★ **by 2003**
The Alliance	-/	-/	★ ★★	+	★★ **100:85-95:47-55**	+	★+

Note: KAMA: Korean Auto Manufacturer Association
MOFAT: Ministry of Foreign Affairs and Trade
MOCIE: Ministry of Commerce, Industry, and Energy
MOCT: Ministry of Construction and Transportation
MOFE: Ministry of Finance and Economy
MOE: Ministry of Environment
★ ★★★he most important interest
+: Pro
+/: Conditional Pro
•: Neutral
-/: Conditional Con
--: Con

I1: Use of a neutral skilled facilitator

This factor is not necessarily a sufficient condition for successful consensus building. Sometimes, public officials convene consensus-building processes without hiring (a) neutral facilitator(s). However, neutral facilitators can overcome stakeholder suspicion of the motives of a convening organization. According to the theory of consensus building, neutral(s) can play a central role in identifying stakeholders and their issues by conducting conflict assessment in a neutral setting.

A skillful facilitator can also ensure that the parties communicate with their

constituents, and that changes required after consensus are accepted by all stakeholders. According to the theory of consensus-building, the successful application of all other initiation and deliberation factors hinges on the first initiation factor of using neutral, skillful facilitator(s).

Unfortunately, neutrals were not used in facilitating any of the processes in these three cases. The initiation and the deliberation of the Joint Commission and of the Environment Commission were dominated by the MOE and the environmental groups. The initiation and deliberation of those two Commissions were perceived by other stakeholders as not neutral and partial toward environment rationales. Even at the initiation of the Joint Commission, the KFEM, which did not participate in the Joint Commission, suspected that the MOE had a hidden agenda in involving the environmental groups. Not just the industrial sectors but the environmental groups also thought the MOE was not neutral.

It may be a counterfactual argument that, if there had been neutral, skillful facilitators in those two consensus-building efforts, the disputes would have been resolved successfully. However, it is certain that the lack of neutrality in the initiation phase of the process affected other factors such as conflict assessment, inclusion of stakeholders, including stakeholders with implementation power, and deliberation factors.

Thus far, this study has analyzed the initiation and deliberation factors prescribed by the theory of consensus-building for the three cases of consensus-building efforts in the case study (Table 10-2 and Table 10-3)

Table 10-4. Relative difference of necessary conditions among three rounds

	Joint Commission	Environment Commission	Task Force
I7: Time pressure and deadline	Yes but worked negatively	Yes, worked positively for consensus-building but not enough time for joint fact finding	Yes, worked positively for consensus-building
I6: Financial support	No	No	No
I5: Participation by organizations with implementing power	No	No	Yes
I4: Multi-clear issues	Yes	Yes	Yes
I3: Inclusion of a full range of stakeholders	Not really	No	Good
I2: Conflict Assessment	No	No	No
I1: Use of a neutral skilled facilitator	No	No	No

It is not possible to judge the importance of each factor just by comparing the three cases. It cannot be said that the Task Force was successful just because it had good scores in the I5 and I3 variables compared to the two commissions. The Task Force had these advantages not only because the most important topics in each effort were different (Diesel RVs → Diesel passenger cars → the Special Act), but also because the composition of each group of participants was different. In addition, the situations just prior to the initiation of each effort were different. Before the Joint Commission, uncertainty about the decision-making processes led to a low threshold for entering the consensus-building effort and a reasonable level of trust among stakeholders. However, following the failure of the Joint Commission, the relationships among stakeholders were so severely damaged that certain stakeholders were excluded from the dialogue at the Environment Commission. Prior to the initiation of the Task Force, the Ministerial meeting for Economy on May 30, 2003 accepted the request of the MOE and the environmental groups to enact the Special Act by the end of 2003. **Thus, the most controversial issues were almost sorted out before the**

Task Force. Considering this contextual factor, the importance of the I3 and I5 factors can be discounted.

Further analysis

Why did the first two consensus-building efforts fail? Considering the problems that followed the first two agreements and analyzing them in light of consensus-building theory, the lack of participation by organizations with implementation power appears to be the most influential factor in the failure of the first two consensus-building efforts.

However, further analysis is necessary to answer a more intriguing underlying question: Why didn't the organizations with implementation power participate? And what about the other factors prescribed by consensus-building theorists? Why did the first two processes score so badly on these?

In the first place, people in South Korea were not familiar with the theory and practice of "consensus-building" as developed in the US. However, it is possible to sort out the next question by identifying the source of the problematic features in several consensus-building factors. The task of identifying sources of difficulty in achieving high scores on consensus-building factors is important, because such analysis might suggest prescriptions for improving consensus-building efforts.

First, those sources can be found at individual, organizational, institutional, and cultural levels. In case of the communication problem (D4) between the Hyundai negotiator

and the CEO in the first effort, the problem could be found in the specific organizational culture. This issue can be dealt with by educating participants in negotiation skills. Alternatively, the convenor or facilitators can check the communications in such cases. Also, process management (D2) skills can be taught by experts. Ground rule setting (D1) also can be easily learned.

Problems related to the deadline factor (I7) indicates more fundamental problems at the institutional level. In the Joint Commission and Environment Commission cases, the deadlines were set by political concern or administrative schedule, not by the assessment of the time needed to prepare for consensus-building, which caused hasty initiation of the process as well as insufficient time for deliberation and joint fact finding.

Then why not in using a neutral facilitator, hence conflict assessment, and right participation and issues, which is the most important factor in the theory of consensus building? To discuss the question above, it is necessary to return to the analytic framework for consensus building in regulatory decision making described in Chapter 2. This model includes a new, fourth stream--consensus building--which includes the initiation and deliberation factors not accounted for in the conventional politics stream. This construction implies that the initiation of a consensus-building stream must be made, particularly in a nascent democracy, by a person not by a stipulation or regulation. Who are the initiators?

Policy entrepreneur

The concept of "policy entrepreneur" is borrowed from Kingdon (1984). Policy entrepreneurs are people who are willing to invest their resources–time, energy, reputation, and sometimes, money–in the hope of influencing public policy (Kingdon, 1984). There is agreement in the literature regarding the importance of policy entrepreneurs as agents of change in the policy innovation process (Baumgartner and Jones, 1993; Polsby, 1984; King and Roberts, 1987; Mintrom, 1997, Minstrom, 2000, Schneider, Teske, and Minstrom, 1995). Policy entrepreneurs can be in or out of the government, in elected or appointed positions, part of interest groups or research organizations.

One of several functions that policy entrepreneurs play is to strategize. This includes developing specific tactics to help carve a foothold for a particular policy innovation in the political arena (Mintrom and Vegari, 1996). Another function is activism, by which policy entrepreneurs engage in the political marketplace. Entrepreneurs create teams and networks that have the abilities, connections, resources, and willingness to work together on behalf of a particular innovation. They are also able to mix in a variety of social and political settings, so that they can readily acquire valuable information and use their contacts to pursue policy change. Finally, policy entrepreneurs must be team builders, able to form the type of coalition best able to support their pursuit of the policy change they desire.

Policy entrepreneurs work for innovation and their own interests, and such innovation often incurs resistance. Thus, policy entrepreneurs are in many cases found at centers of controversy.

Policy entrepreneurs as initiators of consensus building efforts

My analysis of the first two cases suggests that they were initiated by policy entrepreneurs such as Mr. Koh from the MOE, and Mr. Seo, and Mr. Jang from environmental groups. While Mr. Koh had a personal belief that consensus was the appropriate decision rule in dispute resolution, he also took a strategic approach to all issues.

These policy entrepreneurs were able to take advantage of the three streams - problem, policy, and politics - to initiate a consensus-building process. In other words, their strategic motivation led them to believe that a consensus-building process would be advantageous.

These consensus-building efforts were new in air pollution regulatory decision-making in South Korea. As described in Chapter 4, air pollution policy making had only been approached through conventional decision-making streams. In the conventional politics stream, the auto industry, and other single-industry economic interests were able to insulate themselves from the influence of large-scale democratic forces through the creation of relatively independent sub-governments, the so-called, "iron-triangle." Such systems of limited participation are thought to be highly resistant to change (Cobb and Elder, 1983). In such a system, the MOE was much weaker than the powerful economic Ministries, or than the auto and oil industries, which were supported by those Ministries. Thus, environmental decisions were traditionally made in high-level government meetings and influenced by strong lobbies from the industries.

However, there had been changes in the politics stream since the early 1990s in South

Korea. These opened the system to greater participation. In other countries, many systems of limited participation have been quickly and dramatically altered during certain periods of history. One such period was the mid-1970s in the United States, when policy subsystems relating to tobacco, pesticides, air and water pollution, airlines, trucking, telecommunications, and nuclear power were all destroyed or radically altered (Fritschler, 1989; Bosso, 1987; Jones, 1975; Derthick and Quirk, 1985; Campbell, 1988).

Baumgarter and Jones (1991) try to explain how such systems can be altered. They describe how political actors lobby for a change in the roster of participants involved by seeking out the most favorable venue for the consideration of that issue. In this process, both the ***institutional structures within which policies are made*** (March and Olsen, 1989) and ***the individual strategies of policy entrepreneurs*** (Kingdon, 1984) play important roles.

The previous chapters suggested four institutional trends, or changes in the politics stream, that policy entrepreneurs can take advantage in initiating consensus-building streams as a new form of decision-making. The first was the increasing power of environmental groups in debates about major environmental issues. Second, these progressive environmental groups also altered their approach towards formal politics, evolving from a rejectionist approach under President Noh, TW (1988-1993) to state engagement under President Kim, YS (1993-1998) to a state-civil society partnership under Kim, DJ (1998-2003), and currently President Noh, MH (2003 - 2008). Thus, environmental groups gained political resources and connections.

Third, the MOE was still weak compared to other Ministries, though it was growing in size, because there were unbalanced multi-level decision-making venues. Each venue

carries with it a decisional bias, because both participants and decision-making routines differ. For example, higher level government meetings were dominated by Ministries or government entities which were in favor of economic development. These institutions were the Regulation Reform Committee (RRC), and the Ministerial meeting for Economy. If certain environmental policies are believed to put too much burden on the economy, they could be adjusted in these higher decision making venues.

Fourth, the World Cup Soccer Games played a catalytic role in encouraging major environmental groups to take an interest in urban air pollution, which had been portrayed as a technical problem. Until then, technocrats in the government and experts had dominated the decision-making process.

With such an institutional backdrop in the politics stream, Mr. Koh from the MOE and a few leaders of the Alliance who had not been fully represented in the original closed system of urban air pollution policy making, had opportunities to overturn what appeared to be a powerful system of limited participation. In analyzing the negotiation strategies of the MOE and the Alliance (Chapters 6 and 7), it appears that they were able to appeal to new institutional arenas of policy making such as the Joint Commission and the Environment Commission. When the venue for public policy making changes, as often occurs over time, those who previously dominated the policy process may find themselves in the minority, and erstwhile losers may be transformed into winners (Baumgarter and Jones, 1991).

This kind of initiative to create a new institutional venue can be viewed as a political process. Schattschneider's (1960) conception of conflict expansion provides a useful explanation of how this works. Schattschneider argued that losers in a policy debate have a

motive to change the roster of participants by appealing to those not currently involved. If they can appeal to the right groups, they may be able to change their losing position into a winning one, as more people become involved in the debate on their side. The MOE was losing in high-level decision-making venues such as the RRV and the Ministerial meeting for Economy. Environmental groups had not been involved in decision-making for urban air quality management. So these two groups wanted to be able to change their losing position by changing the roster of participants to include environmental groups and exclude industry.

According to Schattschneider, conflict expansion to new venues can occur in three ways. The first is the classic loser appeal strategy (the MOE in this case). The second is action by concerned outsiders (the Alliance in this case), who may or may not be allied with losers in a policy subsystem. Such outsiders often lack both the credibility and information to attack the existing subsystem, so making alliances with losers from within the smaller group can be very important. Third, decision makers (also the MOE) from another venue can attack an existing policy arrangement in an effort to expand their own policy jurisdiction.

Clearly these three conflict expansion processes are not mutually exclusive. In fact, coalitions among all three types of conflict expanders may be expected. This kind of strategic move by policy entrepreneurs affects the factor of inclusion of stakeholders, and in particular, of organizations with implementation power.

Cobb and Elder (1983) describe a link between agenda formation, by which they mean inclusion on the list of issues that compels attention by government, and issue

expansion, which refers to the number of people mobilized around an issue. They see issue expansion as the key element in the destruction of systems of limited participation and argue that as a larger and larger circle of participants is mobilized, the strength of the subsystem is likely to be weakened. There is a second way by which issues may be included on an agenda: venue shopping by strategically minded political actors. Well-placed allies are essential to this process. Strategic policy makers can often be successful in breaking apart policy-making systems which go against their interests without any direct appeal to the broader public.

The strategic effort of policy entrepreneurs to initiate consensus building can affect the selection of agenda items and the range of participants. This can, in turn, make other parties regard the process as unfair leading them to consider other options rather than to stay in a consensus-building process.

This model of conflict expansion can be applied when a consensus-building process is initiated by strategic policy entrepreneurs. In this model, policy entrepreneurs need not employ a rational decision model or know in advance exactly how their ideas will be received. Rather, they may search for favorable venues through a trial-and-error process or an evolutionary search. Those uncomfortable in the current venue have an incentive to seek more favorable ones. Where they find initial success, they continue to search. It is not necessary to assume that strategic actors can predict in advance the single most favorable venue for their policies. Successful efforts to shift venues may often be the result of evolutionary, rather than rational search. This observation maps perfectly onto the evolutionary shift from the Joint Commission to the Environment Commission and to the

Task Force. Policy entrepreneurs sought to win by altering the nature of the decision-making process, that is, by expanding or contracting the range of participants and agenda items involved.

Political conflict expansion vs. Depoliticized Consensus-building factors

The addition of the consensus-building stream to the analytic framework in Chapter 2 makes it possible to consider the critical initiation and deliberation factors described in the theory of consensus building. However, the consensus-building efforts explained in the case studies were definitely not part of that "consensus-building stream." Rather, they reflected the process of political conflict expansion described above. Considering the first initiation factor of classic consensus building reveals the reason why.

The use of a neutral facilitator depoliticizes the strategic use of consensus-building. That's why neutrality is so important in the theory and practice of consensus building. Without securing neutrality in initiation and deliberation, the Joint Commission and the Environment Commission were not able to resolve the dispute. Lacking the neutrality factor, the dispute had to be resolved through adversarial power maneuvering in the conventional politics stream.

Learning and another question

The primary finding in this case study is that policy entrepreneurs can initiate consensus-building processes through strategic action. Where initiation and deliberation factors are not secured, dispute resolution is less likely to be effective. The lesson is that processes that seek consensus can actually make conflict more protracted.

Unbalanced multi-level decision-making venues such as the RRC and the Ministerial meeting for Environment, and the lack of meaningful participation of civil society in a nascent democracy, drove policy entrepreneurs to adopt specific strategies for initiating and deliberating. Even if policy entrepreneurs have the opportunity to learn the importance of a neutral facilitator, they will hesitate to adopt the idea because they think turning power over to a neutral means losing it themselves.

Someone might argue that the effectiveness of new governance could be achieved through the countervailing power of civil groups (Fung, 2002). Or, some might say that the disputes observed in this case were necessary evils required to strike a balance between environmental concerns, which have been ignored, and economic development concerns, which had dominated a rapidly developing country.

The question is whether that is really so. The cost of achieving balanced consensus building in such a dispute is quite high. The economic cost incurred by delayed decisions, damaged relationships among stakeholders, and the persistence of dissatisfaction among some stakeholders were the unfortunate byproducts of these three consensus-building efforts in South Korea.

Almost three years have passed since the Special Act was enacted in the National Assembly in December 2003. The parties to the three experiments may have learned something through their participation. However, it is unfortunate that they did not systematically evaluate the processes together to discover what could be improved.

When interviewed, some stakeholders said that they managed to win, but it was very difficult. Others said that they lost due to one reason or another. Some still did not believe the consensus agreement would be implemented as planned because of the government's consistent record of always changing its plan.

However, one environmentalist confessed that environmental groups should not have stuck to their original positions. He said that there are times environmental groups should oppose certain measures on principle, even if they believe the measures are reasonable. The MOCIE might have learned that ignoring consensus building could cause another big problem, or that resorting to higher decision-making venues did not work well. Automakers could have learned that they should not have been subservient to the regulators in the process. The MOE also might have realized that excluding stakeholders might cause another problem at later stages. All stakeholders might have learned the meaning of authentic consensus.

One government official argued that the most important thing in public dispute resolution is the will to reach consensus. However, what is more important is to how to secure the will to reach consensus in a systematic way. That part is covered by the theory and practice of consensus building.

So, people in South Korea and other rapidly developing countries with similar characteristics should learn from these cases the efficacy of using neutral facilitators just as Mr. Koh from the MOE learned from his previous experience that consensus building can work. They should try to experiment with consensus-building projects using the prescribed factors that experienced practitioners have found most important. South Korea is likely to see more cases of commission-type consensus building. However, if those processes are not initiated with appropriate and rigorous preparation, they will not meet the standards of authentic consensus building introduced earlier in this study. Furthermore, the inevitable failures will cause people to be suspicious of the efficacy of consensus building in regulatory decision making.

Consensus building entrepreneur

To overcome institutional barriers and facilitate experiments in authentic consensus building, consensus-building entrepreneurs, who spend time, energy, and reputation, (and possibly money) persuading stakeholders to try experiments; facilitate the distribution of consensus-building theory; and help stakeholders realize that authentic consensus building can work in their societies. If there are more and more consensus-building entrepreneurs in regulatory decision making working to make consensus building more authentic, Kingdon's multi-stream framework will change and new governance mechanisms will add a fourth stream to the decision-making process.

The next relevant question will be who can be neutral consensus-building entrepreneurs in national environmental policy making in South Korea, and how will they realize the right version of consensus building process, prescribed by the theory of consensus building, in actual regulatory practice. Overall, there can be two possible sources of consensus-building entrepreneurs: 1) inside government and 2) outside government.

Within each category, we can find various candidates. First, inside government, there are four ways to identify a cadre of consensus building entrepreneurs. The first is government officials, who have specific policy interests and strategic options as policy entrepreneurs described above, but have to secure the procedural tenets of the right consensus building. They should realize that following depoliticized and neutralized procedural guidelines could secure their interests more effectively than engaging in conflict expansion strategies. While it might be very impractical to insist that they abandon their strategic option to make the most of their interests, there are times when they are to consider becoming procedural leaders, as well as stakeholders, in regulatory decision making. For an example, Mr. Koh, who initiated the Joint Commission and the Environment Commission. The MOE should have realized that neutral facilitation following carefully designed procedures could offset the power imbalances that they regarded as a rationale for employing politically strategic moves. Such a realization could be achieved by studying real experiences of successful consensus building efforts, or through participation in simulations. It would probably be very difficult to change their minds in a short time period, but through small experiments, new process leaders can be created.

The second option for consensus building entrepreneurs within South Korean government is to establish a new department or bureau in each Ministry that advocates consensus building within their own Ministries. The officers in such a new department will need proper education, knowledge, and skill to facilitate and manage regulatory negotiations. Even if they belong to a specific Ministry, their only interest should be in helping all stakeholders design and "own" consensus building processes in a neutral way. The problem for this option is that other stakeholders might view these new leaders as biased on behalf of their Ministry's interests. The only way to overcome this perception is to build trust through experiments and show that such agency participants can manage negotiation processes neutrally. In this scenario, education can be targeted and focused on the new leaders in new consensus building department in each government sector.

A third option might be the use of the government official(s) who will be accepted as neutral among all the stakeholders. If there were a roster of such government officials who know how to apply the theory and practice of consensus building in each Ministry, these official(s) could help other Ministries resolve public disputes. In other words, each Ministry might generate new leaders for consensus building who would assist other Ministries. In this way, the officers are more likely to be accepted as neutral mediators.

Lastly, the South Korean government could enhance the role of the existing Office for Government Policy Coordination (OGPC) in mediating multi-Ministry and multi-stakeholder public disputes by making the OGPC more independent from outside pressures.

When it comes to the possibility of using professional neutrals from the private sector, there might be a belief that they cannot be used as mediators for national regulatory

decision making, given the view that national regulatory negotiations should be managed by government bodies. However, given the experience abundant in the world, there is reason to believe that neutrals from private sector such as academics, or trained dispute resolution professionals can be utilized as facilitators and mediators in public dispute resolution in South Korea. Such persons are the ones who are only interested in resolving disputes and do not advocate any specific interest in any policy controversy. In a much networked society like South Korea, people are prone to connect people through their academic affiliations, regional relations, and/or blood ties. Anyone who tries to mediate may be tested and challenged by those stakeholders who may want to influence them through those relational ties. Their neutrality can only be established by a track record of success. This would produce a lot more professional neutrals to work in national regulatory disputes in South Korea.

Given the strong demand for consensus building in many regulatory decision-making situations in South Korea, what is important is the quality of facilitators or mediators who are appropriately skilled in the arts and science of consensus building. Their skills and knowledge of process management, as mentioned above, can be built up through experience working on small scale experiments of new innovative procedures. The government must be willing to make such experiments happen. Just a small number of successful cases will establish the value of consensus building approach to public dispute resolution.

Chapter Eleven

Toward a theory of regulatory decision-making in many rapidly developing countries

This analysis has addressed the two case-specific questions of why the first and the second consensus-building efforts failed, while the third one was successful. Based on these answers, I addressed the first general question posited at the outset of this study. The first question was ***what are the main obstacles in nascent democracies, whether at a personal or institutional level, to meeting the necessary conditions for successful dispute resolution around urban air pollution.*** In this final chapter of the thesis, I advance from the first question to another more generalized question: ***how could a newly democratized society improve consensus-building efforts in its regulatory decision making?*** Put another way, I intend to generalize a theory of the regulatory policy process in nascent democracies of rapidly developing countries, such as South Korea.

The need for new model for policy making in newly democratized and rapidly developing countries

Theories of the policy process explain how policy decisions are affected by interest politics and policy disputes among many stakeholders. In my analysis, I adopted Kingdon's Multiple Stream Framework (1984) to explain how complicated policy processes and

regulatory negotiations in urban air quality management proceed in South Korea. As was noted earlier, Kingdon's model was developed to encapsulate aspects of policy-making in advanced post-industrial societies characterized by high degrees of bureaucratization and professionalization. Thus, the theory does not travel well to other institutional context, such as those of newly democratized and developing countries.

So, in this chapter, I put the Kingdon's model aside and search for a better model of regulatory decision making which has more relevance for newly democratized countries such as South Korea. In so doing, the new model should help us see something we would not otherwise see.

To generalize my findings beyond urban air quality management, I acknowledge the influence of exogenous factors in policy making, especially in new democracies in rapidly developing countries.

Democratization in rapidly developing countries

Since the Third Wave of democratization started by the "Carnation Revolution" in Portugal, 1974, a quarter century of democratization had added 65 new democracies. However, many countries that moved away from dictatorial rule cannot be considered countries in transition toward democracy (Carothers, 2002). Many new democracies remained in a gray zone while some advance to liberal democracy[301]. So with regard to democratic consolidation, the "wave" concept does not fit very well. New democracies took

[301] Larry Diamond noted that out of 104 democracies in the world, 73 democracies may be considered liberal. Another 31 democracies are electoral but not liberal, 17 regimes are on the blurry boundary between electoral democracy and competitive authoritarianism, 21 competitive authoritarianism, 25 hegemonic electoral authoritarian, 25 politically closed authoritarian (Diamond, 2002).

diverse paths, either advancing toward liberal democracies, or lingering as electoral democracies with defects, or regressing to competitive authoritarianism. New democracies are positioned at different stages of consolidation and regression.

In this chapter, however, my focus is on the more than half of new democracies[302] (34 out of 65 countries) which entered in the club of liberal democracies by the end of 2001. In these new liberal democracies, people and politicians generally no longer worry about authoritarian subversion or regression they are also part democratic breakdown and erosion. However, in many of these new liberal democracies, democratic institutions are in play, but far from firmly-rooted. In these countries, institutional changes have been made to foster a high degree of accountability, transparency, the rule of law, participation, representation, and state capacity (Diamond, 2002)

In terms of the degree and speed of institutional transition, rapidly developing countries have lower levels of social capital, but higher speeds of democratization than advanced countries. Thus, a new model of policy making for rapidly developing and newly democratized countries must incorporate this feature of rapid institutional change, which might influence the dynamics of regulatory decision-making. In case of South Korea, since the democratic transition in 1987, the country has moved forward very fast in constituting liberal democracy, even though it was late to join the global wave of democratic transition (Im, 2005). Recently, Freedom House recognized the advancement of South Korean democracy and upgraded its rating for the first time since 1993 to 1.5 (it got the highest

[302] In general, newly democratized countries are rapidly developing countries, which lead the third world countries in East and Central Europe, Asia, and Latin America. Those countries may include Poland, the Czech Republic, Bulgaria, Hungary, Greece, Russia, Ukraine, Lithuania, South Korea, Taiwan, Indonesia, Thailand, Mexico, Chile, Guatemala, South Africa, and so forth.

possible score of 1 on political rights, but maintained a score of 2 on civil liberties) (Freedom House, 2004). South Korea has become the most advanced liberal democracy in Asia, along with Japan and Taiwan.

Power games and resistance to change

These institutional changes mean a victory for some actors and a loss for others, because rapid institutional change, which has been phenomenal from the early 1990s in South Korea, influences who has power, who has access to information, and who can form "winning" coalitions. In the larger institutional context of such power changes, decision-making process is affected. For example, more and more NGOs have been fighting for a greater role in public decision-making. Conventional power groups have refused to involve them. During these power games, policy advocacy coalitions (Sabatier and Jenkins-Smith, 1993) have emerged.

New actors equipped with strong arguments on behalf of good governance and deepening democracy have overcome their previous weak positions by forming coalitions with other relatively weak entities and forcing new venues for expanded participation.

In terms of public dispute resolution, this challenge from new actors and resistance from existing actors sets the context for regulatory decision-making. So, in analyzing specific regulatory disputes, such as the urban air pollution dispute, these larger struggles must be taken into account.

Especially in national environmental policy making, civil organizations, which have gained more and more power, are new actors, searching for possible coalitions to break

existing power imbalances. In such cases, they have often been successful in pushing for broaden participatory decision-making. They have also tried to exert excessive powers in effort to dominate the process, generating protracted public disputes. That can be seen in my case studies of the Joint Commission and the Environment Commission.

A question of balance

Given the institutional power games that often overshadow specific issues, such as air pollution, any new theory should suggest how to achieve political equilibrium. In a transition regime moving toward consolidated democracy, there is a tendency for new and old actors to stick to the conventional wisdom of political bargaining, since they know no other means to intervening politically. Thus, I have borrowed the ideas and insights from the theory and practice of consensus building developed in the west, and offered them as a new tool for overcoming the power balance game in many rapidly democratizing societies. As I suggested in the previous chapter, whether the new model offers a better process for new democracies can only be tested and established through experimentation, evaluation, and public debate

Implication of the new institutional context for the role of science

The role of science as a definitive and objective source in public policy making has become increasingly important in resolving science-intensive public disputes. Most environmental regulatory decisions, for example, require a forecast of certain environmental impacts associated with various policy measures. If there are not enough

data or existing data are controversial, these forecasts will be put aside, often leading to very unwise policy choices.

In terms of urban air quality management, many scientific questions still need to be addressed in order to produce wise decisions. For example, what are the sources of urban air pollution and where do they come from? (Emission inventories) How will their composition change over the next 20 years? (Scenario analysis) How will these pollutants disperse within the region? (Air pollution modeling) How will these pollutants impact health? (Health impact analysis)

For analytic purposes, Integrated Environmental Assessment (IEA) has been used as an analytic tool in recent years in many other places to try to answer these questions. However, the use of science in public policy making is located in the turbulent middle ground between science and politics, because assessments are frequently introduced into highly contentious and partisan debates. Thus, assessments ought to be presumed biased unless and until they meet a series of explicit tests of their legitimacy. One way to secure the legitimacy of any scientific assessment for regulatory decision-making is to involve more stakeholders jointly in the preparation. This means asking stakeholder to jointly charge experts to conduct assessments. In so doing, stakeholders will have more confidence in assessment results and "own" the products.

This kind of joint fact-finding is a necessary condition for 'wise' decision-making and requires carefully designed procedure for selecting experts, creating appropriate research questions, securing research funds and reviewing research results. That kind of procedure

requires lots of preparation time and resources, which are more often than not ignored because of the political pressure to make quick choices.

The new institutional context in a rapidly developing and newly democratizing society is likely to undervalue joint fact-finding, because it only makes sense in the context of a well-managed consensus building process. Assessment processes are likely to be dominated by certain powerful actors, whether government entities, industries, or environmental NGOs.

Joint fact finding, owned by all the stakeholders, could be very important tool for resolving disputes in complex science-intensive environmental regulatory decision-making. New leaders, or what I call, consensus building entrepreneurs, should be identified as soon as possible. This is the key to better policy making in the new institutional context in rapidly developing and newly democratizing countries

The three case studies presented in this dissertation focused heavily on the problems that arose. However, they also offered some bright spots. Environmental groups were empowered through their participation in all three cases. They gained knowledge of urban air pollution and the technology of diesel passenger cars. They moved from outside government consensus-building efforts (the Joint Commission and the Environment Commission) to inside consensus building (the Task Force). Despite the lack of true consensus, they were able to participate in generating satisfactory agreements that allow diesel passenger cars and implement the Special Act. It would be a valuable to learn more about the long-term benefits of the consensus-building efforts.

Second, there should be more discussion of how disputes might be prevented. Why did the conflicts represented in this case study arise in the first place? Were they avoidable? Ways of preventing disputes in regulatory policy making deserve further research.

Third, societal relationships display unique cultural features. While people from western countries are more individualistic, South Korean people think about the needs and demands of their group or organization. It would be interesting to examine which cultural features are most favorable to consensus building in the South Korean context.

BIBLIOGRAPHY

Ackerman, Bruce A., and William T. Hassler (1981). *Clean Coal/Dirty Air or How the Clean Air Act Became a Multi-Million Dollar Bailout for High-Sulfur Coal Producers and What Should be Done About It.* New Haven: Yale University Press.

Adler, J. H. (1992). Clean Fuels, Dirty Air. In Michael Greve and Fred Smith, Eds. *Environmental Politics: Public Costs, Private Rewards.* New York: Praeger Publishers.

American Manufacturers Association (AMA) (1998). *World Motor Vehicle Data.*

American Petroleum Institute (1972). *Letter to Deputy Assistant Administrator for Air Programs.* May 22, 1972.

Amy, D. J. (1987). *The Politics of Environmental Mediation.* New York: Columbia University Press.

Ayres, I. and J. Braithwaite (1992). *Responsive Regulation: Transcending the Deregulation Debate.* Oxford, UK: Oxford University Press.

Bailey, C. J. (1996). "Explaining the Choice of Air-Pollution Control Strategies in the United States: Some Evidence of Institutional Bias." *Environmental Politics* **5**:85-89.

Bailey, C. J. (1998). *Congress and air pollution: Environmental policies in the USA.* Manchester and New York: Manchester University Press.

Barber, B. (1984). *Strong democracy: Participatory politics for a new age.* Berkeley, CA: University of California Press.

Bardach, E. and R. A. Kagan (1982). *Going by the Book: The Problem of Regulatory Unreasonableness.* Philadelphia, PA: Temple University Press.

Baumgartner, Frank and Bryan D. Jones (1991). "Agenda dynamics and policy subsystems. *Journal of Politics* **53**(4): 1044-1074.

Baumgartner, Frank and Bryan D. Jones (1993). *Agenda and Instability in American Politics.* Chicago: The University of Chicago Press.

Beardsley, D., Davies, T., and Hersh, R. (1997). "Improving Environmental Management: What Works, What Doesn't." *Environment* **39**(7): 6-9, 28-35.

Bingham, G. (1986). *Resolving Environmental Dispute: A Decade of Experience.* Washington: The Conservation Foundation.

Bingham, L., and R. O'Leary (2004). *The New Governance: Practices and Processes for Stakeholder and Citizen Participation in the Work of Government.* Draft submitted to Civic Engagement in the 21st Century: Toward a Scholarly and Practical Agenda. University of Southern California, School of Policy, Planning, and Development and Jesse M. Unruh Institute of Politics, October 1-2, 2004.

Blackman, Allen and Winston Harrington (1998). *Using Alternative Regulatory Instruments to Control Fixed Point Air Pollution in Developing Countries: Lessons from International Experience.* Discussion Paper 98-21. Resources for the Future. Washington, D.C.

Booher, D. E., and J. E. Innes (2002). "Network Power in Collaborative Planning." *Journal of Planning Education and Research* **21**(3): 221-36.

Bosso, C. (1987). *Pesticides and Politics.* Pittsburgh, PA: University of Pittsburgh Press.

Caldart, C., and N. Ashford (1999). "Negotiating as a Means of Developing and Implementing Environmental and Occupational Health and Safety Policy." **23** *Harvard Environmental Law Review* 141.

California Air Resources Board (CARB) (2002). *Staff report: Public hearing to consider amendments to the ambient air quality standards for particulate matter and sulfates.* California Air Resources Board and Office of Environmental Health Hazard Assessment, Sacramento, CA.

Campbell, J. (1988). *Collapse of an industry*. Ithaca, NY: Cornell University Press.

Carothers, Thomas (2002). "Democracy." *Foreign Policy* 107.

Carpenter, S., and W. J. D. Kennedy (1988). *Managing public disputes*. San Francisco, CA: Jossey-Bass Publishers.

Central Intelligence Agency (CIA) (2005). The World Fact Book: South Korea http://www.odci.gov/cia/publications/factbook/geos/ks.html.

Cobb, R. W., and C. D. Elder (1983). *Participation in American Politics: The Dynamics of Agenda-Building.* Boston: Allyn & Bacon.

Coglianese, C. (2000). "The Constitution and The Costs of Clean Air: Is the Clean Air Act Unconstitutional? Report on Reports." *Environment* **42**(9): 32-37.

Coglianese, C. (2001). *Is Consensus an Appropriate Basis for Regulatory Policy?* RWP01-012. Faculty Research Working Papers Series. John F. Kennedy School of Government. Harvard University.

Cohen, J. (1983). *On Democracy*. Middlesex, England: Penguin Books.

Cohen, J. (1989). Deliberation and democratic legitimacy. In A. Hamlin and P. Pettit, Eds. *The good polity*. New York: Blackwell.

Cohen, M., March, J., and J. Olsen (1972). "A Garbage Can Model of Organizational Choice" *Administrative Science Quarterly* **17**: 1-25.

Cohen, R. E. (1992). *Washington at Work: Back Rooms and Clean Air.* New York; Macmillan.

Connick, S., and J. E. Innes (2002). "Outcomes of Collaborative Water Policy Making: Applying Complexity Thinking to Evaluation." *Journal of Environmental Planning and Management* **46**(2): 177-197.

Cotton, James (1998). "From Authoritarianism to Democracy in South Korea." *Political Studies* **37**: 244-259.

Crenson, Matthew A. (1971). *The Un-Politics of Air Pollution: A Study of Non-Decisionmaking in the Cities*. Baltimore: The Johns Hopkins Press.

Croissant, A. (2002). Electoral Systems in Asia as Elements of Consensus and Majoritarian Democracy: Comparing Seven Cases. In Young Rae Kim, Hochul Lee, and In-Sah Mah, Eds. *Redefining Korean Politics: Lost Paradigm and New Vision* Seoul: Korea Political Science Association.

Dahl, R. A., and C. E. Lindblom (1953). *Politics, Economics, and Welfare*. New York: Harper and Row.

Daniels, Gregory A., and Gregg B. Walker (1996). "Collaborative learning: Improving public deliberation in ecosystem-based management" *Environmental Impact Assessment Review* **16**: 71-102.

Dasgupta, S., Hamilton, K., Pandey, K., and D. Wheeler (2004). *Air Pollution during*

Growth: Accounting for Governance and Vulnerability. World Bank Policy Research Working paper 3383.
Derthick, M., and P. J. Quirk (1985). *The Politics of Deregulation*. Washington, D.C.: Brookings.
DeWitt, J. (1994). *Civic Environmentalism: Alternatives to Regulation in States and Communities*. Washington, D.C.: Congressional Quarterly Press.
Diamond, L., and D. C. Shin (2000). *Institutional Reform and Democratic Consolidation in Korea.* Stanford, California: Hoover Institution Press.
Dorf, Michael and Charles Sabel (1998). "A Constitution of Democratic Experimentalism." *Columbia Law Review* **98**: 267-473.
Dryzek, J. S. (1997). *The Politics of the Earth: Environmental Discourses*. Oxford UK: Oxford University Press.
Dryzek, J. S. (2000). *Deliberative Democracy and Beyond: Liberals, Critics, Contestations*. Cambridge: Oxford University Press.
Elliot, E. D., Ackerman, B. A., and J. C. Millian (1985). "Toward a Theory of Statutory Evolution: The Federalization of Environmental Law." *Journal of Law, Economics, and Organization* **1**(2): 313-340.
Elster, J. (1998). *Deliberative Democracy*. Cambridge: Cambridge University Press.
Environmental Journalist club (2001). *The reason why salmons do not return.* Seoul, Korea: Kung-Ri.
EPA (2002). *National Air Quality and Emissions Trends Report, 2000: Appendix A, Tables A-15 and A-19.* Research Triangle Park, U. S. Environmental Protection Agency, Office of Air Quality Planning and Standards.
Esty, D., and P. Cornelius (2002). *Environmental Performance Measurement: The Global Report 2001-2002.* Oxford Press.
Evans, P. (1995). *Embedded Autonomy: States and Industrial Transformation*. Princeton, NJ: Princeton University Press.
Faiz, A., Sinha, K., Walsh, M. and A. Valma (1990). *Automotive Air Pollution: Issues and Options for Developing Countries.* WPS 492. World Bank, Washington, D.C.
Fiorino, D. J. (1988). "Regulatory Negotiation as a Policy Process." *Public Administration Review* **48**(4): 764-772.
Fiorino, D. J. (1990). "Public Participation and Environmental Risk: A Survey of Institutional Mechanisms." *Science, Technology, & Human Values* **152**: 226-243.
Fiorino, D. J. (2001). "Environmental Policy as Learning: A New View of an Old Landscape." *Public Administration Review* **61**(3): 322-334.
Fisher, R., and W. Ury (1983). *Getting to Yes: Negotiating an Agreement without Giving in.* New York: Penguin Books.
Ford Motor Company (1970). *Statement by L. A. Iacocca*, Executive Vice President, Ford Motor Company, Sept 9, 1970.
Frederickson, H. George (1999). "The Repositioning of American Public Administration." *PS: Political Science and Politics* **32**(4): 701-711.
Freedom house (2005). *Map of Freedom: Country Report – South Korea.* http://www.freedomhouse.org.
Freeman, J. (1997). "Collaborative Governance in the Administrative State." *UCLA Law*

Review **45**(1): 1-99.
Freeman, J., and L. I. Langbein (2000). "Regulatory Negotiation and the Legitimacy Benefit," *NYU Environmental Law Journal* **9**(1): 60-151.
Fritschler, L. (1989). *Smoking and politics.* Englewood Cliffs, NJ: Prentice Hall.
Fung, Archon (2002). *Collaboration and Countervailing Power: Making Participatory Governance Work.* Draft: September 10, 2002. JFK School of Government, Harvard University.
Fung, Archon (2004). *Empowered Participation: Reinventing urban democracy*. Princeton, NJ: Princeton University Press.
Funk, W. (1997). "Bargaining Toward the New Millennium: Regulatory Negotiation and the Subversion of the Public Interest" **46** *Duke Law Journal* 1351.
Glasbergen, P. (1996). Learning to Manage the Environment. In William M. Lafferty and James Meadowcroft, Eds. *Democracy and the Environment: Problems and Prospects.* Cheltenham, UK: Edward Elgar: 175-193.
Glaser, B. (1992). *Basic of Grounded Theory Analysis.* California: Sociology Press.
Goldberg, S. B., Sander, F. E., and N. H. Rogers (Eds.) (1992). *Dispute Resolution: Negotiation, Mediation, and Other Processes.* Boston-Toronto-London: Little Brown and Company.
Grossman, G. M., and A. B. Krueger (1995). "Economic Growth and the Environment." *Quarterly Journal of Economics* **110**(2): 353-77.
Habermas, J. (1981). *The Theory of Communicative Action: Reason and the Rationalization of Society*, Vol. 1, trans. Thomas McCarthy. Boston, MA: Beacon Press.
Hahm, S. D. and L. C. Plein (1997). *After Development: the Transformation of the Korean Presidency and Bureaucracy.* Washington D.C.: Georgetown University Press.
Hall, R. L. (1987). "Participation and Purpose in Committee decision making." *American Political Science Review* **81**:105-128.
Harashima, Y., and T. Morita (2001). *A Comparative Study on Environmental Policy Development Processes in The Three East Asian Countries of Japan, Korea, and China.* UNU/IAS Working Paper No. 95.
Harrison, K. (1999). "Talking with the Donkey: Cooperative Approaches to Environment Protection" *Journal of Industrial Ecology* **2**(3): 51-72.
Harter, P. J. (1982). "Negotiating Regulations: A Cure for Malaise." *Georgetown Law Journal* **71**: 1-113.
Harter, P. J. (2000). "Assessing the Assessors: The Actual Performance of Negotiated Rulemaking." **9** *N.Y.E. environmental L. J.* **32**, 37-39.
Healey, P. (1997). *Collaborative Planning: Shaping Places in Fragmented Societies.* London: Macmillan.
Healey, P. (1998). "Building Institutional Capacity Through Collaborative Approaches to Planning." *Environment and Planning A* **30**(9): 1531-46.
Heclo, H. (1978). Issue Networks and the Executive Establishment. In Anthony King, Ed. *The New American Political System.* Washington, D.C.: American Enterprise Institute.
Hettige, H., Huq, M., Pargal, S., and D. Wheeler (1996). Determinants of pollution Abatement in Developing Countries: Evidence from South and Southeast Asia. *World Development* **24**(12): 1891-1904.

Heymann, Matthias (2004). Air Pollution Control: Who Are the Experts? Chapter 8. In Elke Kurz-Milcke and Gerd Gigerenzer, Eds. *Experts in Science and Society*. Boston: Kluwer Academic/Plenum Publishers.

Hockenstein, J.B., Stavins, R.N., and B. W. Whitehead (1997). "Crafting the Next Generation of Market-Based Environmental Tools." *Environment* **39**:13-20, 30-33.

Holman, C. (1999). Sources of air pollution. In Stephen T. Holgate, Hillel S. Korean, Jonathan M. Samet, and Robert M. Maynard, Eds. *Air pollution and Health*. London: Academic Press.

Holzinger, K. (2001). "Negotiation in Public Policy-Making: Exogenous Barriers to Successful Dispute Resolution." *Journal of Public Policy* **21**: 81-106.

Horowitz, D. (1989). "Is there a Third-world Policy Process." *Policy Science* **22**: 197-212.

Huntington, S. P. (1991). *The Third Wave: Democratization in the Late Twentieth Century*. University of Oklahoma Press.

Hyundai Motor Company (2004). *The Road to Sustainability: 2003/2004 Sustainability Report.* Hyundai Motor Company.

Im, Hyug Baeg (2005). *Democratic Consolidation and Democratic Governance: 21st Century South Korean Democracy in Comparative Perspective.* Paper prepared to the 6th Global Forum on Reinventing Government, Seoul, Korea.

Ingram, H. (1978). The Political Rationality of Innovation: The Clean Air Act Amendments of 1970. In Ann F. Friedlaender, Ed. *Approaches to Controlling Air Pollution.* Cambridge, MA: MIT Press.

Innes, J. E. (2004). "Consensus Building: Clarifications for the Critics" *Planning Theory* **3**(1): 5-20.

Innes, J. E. and David E. Booher (1999). "Consensus Building and Complex Adaptive Systems: A Framework for Evaluating Collaborative Planning." *Journal of the American Planning Association* **65**(4): 412-423.

Iwami, T. (2004). *The Advantage of Latecomer in Abating Air-Pollution: The East Asian Experience.* Discussion Paper. CIRJE-F-133. http://www. e.u-tokyo.ac.jp/cirje/research/03research02dp.html.

Janicke, M. (1996). Democracy as a Condition for Success: The Importance of Non-Institutional Factors. In William M. Lafferty and James Meadowcroft, Eds. *Democracy and the Environment: Problems and Prospects.* Cheltenham, UK: Edward Elgar: 71-85.

Jones, Charles O. (1975). *Clean Air: The Policies and Politics of Pollution Control.* Pittsburgh, PA: University of Pittsburgh Press.

Jones, N. A. (2004). *Institutional Windows: Assessing the Scope for Civil Society-State Engagement in Democratizing South Korea.* Working paper.

Joskow, P. L., and R. Schmalensee (1998). "The Political Economy of Market-based Environmental Policy: The U.S. Acid Rain Program." **41** *J. L. & Econ.* 37.

Kagan, R. A. (1995). Adversarial Legalism and American Government. In Marc K. Landy and Martin A. Levin, Eds. *The New Politics of Public Policy.* Baltimore, MD: Johns Hopkins University Press: 88-118.

Kagan, R. A. (1997). "Political and Legal Obstacles to Collaborative Ecosystem Planning." **24** *Ecology Law Quarterly* 871.

KAMA (Korean Automobile Manufacturers Association) (1996). *Korea Automobile*

Industry Outlook 1996.
KAMA (Korean Automobile Manufacturers Association) (1999). *Prospect for 2000 Auto Industry.*
Kasperson, Roger (1986). "Six propositions for public participation and their relevance for risk communication." *Risk Analysis* **6**(3): 275-281.
Kemmis, Daniel (1990). *Community and the Politics of Place.* Norman: University of Oklahoma Press.
Kenworthy, J. and F. Laube (2002). "Urban transport patterns in a global sample of cities and their linkages to transport infrastructures, land use, economics and environment." *World Transport Policy and Practice* **8**(3): 5–20.
KIMM (Korea Institute of Machinery & Materials) (1999). *A Study on the Establishment of Vehicle Emissions Standards after 2000.* BSI355-755.M.
Kim, S. (1998). "Civil society and democratization in South Korea." *Korea Journal* Summer.
Kim, S. (2000). *The Politics of Democratization: The Role of Civil Society.* Pittsburgh: University of Pittsburgh Press.
Kim, Samuel S. (2000). Korea and Globalization (Segyehwa): A Framework for Analysis. In S. S. Kim, Ed. *Korea's Globalization.* Cambridge: Cambridge University Press.
King, Paula J., and Nancy C. Roberts (1987). "Policy Entrepreneurs: Catalysts for Policy Innovation." *The Journal of State Government* **60**(4): 172-179.
Kingdon, J. W. (1984). *Agendas, Alternatives, and Public Policies.* Boston: Little, Brown.
Koo, Y. (1979). "Legal Aspects of Environmental Protection in Korea." *Korean Journal of Comparative Law* **7**: 1-59.
Kooiman, J. (1993). Governance and Governability: Using Complexity, Dynamics, and Diversity. In J. Kooiman, Ed. *Modern Governance.* London: Sage Publications: 35-48.
Kraft, M. E. (1995). Congress and Environmental Policy. In James P. Lester, Ed. *Environmental Politics and Policy.* Durham, NC: Duke University Press.
Kraft, M. E. (1996). *Environmental Policy and Politics.* New York: Longman Publishing Group.
Kraft, M. E. (2000). "U.S. Environmental Policy and Politics: From the 1960s to the 1990s." *Journal of Policy History* **12**(1): 17-42.
Kwon, H. J. (1999). *The Welfare State in Korea: The Politics of Legitimation.* Oxford: St. Anthony's College, Oxford.
Kwon, H. J. (2000). "*Globalization, Unemployment and Policy Responses in Korea: Repositioning the State?*" Department of Public Administration, Sung Kyun Kwan University. Korea.
Latham, E. (1952). "The Group Basis of Politics: Notes for a Theory." *American Political Science Review* **46**:390.
Lax, D., and J. K. Sebenius (1985). "The Power of Alternatives or the Limits to Negotiation." *Negotiation Journal* **1**(2): 77-95.
Linz, J. J., and A. Stepan (1996). *Problems of Democratic Transition and Consolidation: Southern Europe, South America, and Post-Communist Europe.* Baltimore: The Johns Hopkins University Press.
Lowi, T. (1972). "Four Systems of Policy, Politics and Choice." *Public Administration*

Review **33**: 298-310.
Lowi, T. (1979). *The End of Liberalism: The Second Republic of the United States.* New York: Norton.
Lundqvist, Lennart J. (1980). *The Hare and the Tortoise: Clean Air Policies in the United States and Sweden.* Ann Arbor, MI: University of Michigan Press.
Mainwaring, S., and T. R. Scully (1995). Introduction: Party Systems in Latin America. In S. Mainwaring, and T. R. Scully, Eds. *Building Democratic Institutions: Party Systems in Latin America.* Stanford: Stanford University Press.
Mansbridge, J. (1980). *Beyond adversary democracy.* New York: Basic Books.
March, J. G., and J. P. Olsen (1989). *Rediscovering Institutions.* New York: Free Press.
McKinney, M. (1997). "The challenge of funding consensus-building processes." *Negotiation Journal* **13**(3): 235-241.
Milward, B. H., and G. Walmsley (1984). Policy Subsystems, Networks, and the Tools of Public Management. In Robert Eyestone, Ed. *Public Policy Formation and Implementation.* New York: JAI Press.
Ministry of Environment, Republic of Korea (2004). *Special Measures for Metropolitan Air Quality Improvement, Air Quality Management, Policies & Legislations.* Webpage: accessed March 20, 2004. http://eng.me.go.kr/user/policies/policies_view.html?msel=b2&seq=7&filename=2_air_07.html&table_name=me_new_air.
Ministry of Environment, Republic of Korea (2004). *Best Practices 2004.* South Korea: Ministry of Environment.
Ministry of Surface Transport of India (1997). *Motor Transport Statistics of India ,1996.* Transport Research Wing. Government of India, New Delhi.
Mintrom, M. (1997). "Policy Entrepreneurs and the Diffusion of Innovation." *American Journal of Political Science* **41**(3): 738-770.
Mintrom, M. (2000). *Policy Entrepreneurs and School Choice.* Washington: Georgetown University Press.
Mintrom, M., and Sandra Vegari (1996). "Advocacy Coalitions, Policy Entrepreneurs, and Policy Change." *Policy Studies Journal* **24**(3):420-434.
Mooij, J. (2003). *Smart Governance? Politics in the Policy Process in Andhra Pradesh, India.* Working Paper 228. Longdon, UK: Overseas Development Institute.
Moon, Chung-in, and Sung-hack Lim (2003). "Weaving Through Paradoxes: Democratization, Globalization, and Environmental Politics in South Korea." *East Asian Review* **15**(2): 43-70.
Moore, C. W. (1986). *The mediation process: Practical strategies for resolving conflicts.* San Francisco, CA: Jossey Bass Wiley.
Morris, A. P., and Meiners, R. E., and A. Dorchak (2003). "Between a Hard Rock and a Hard Place: Politics, Midnight Regulations, and Mining." **55** *Admin, L. Rev.* 700.
Morris, A. P., Yandle, B., and A. Dorchak (2004). *Choosing How to Regulate.* Case Research Paper Series in Legal Studies. Working Paper 04-3. April. 2004. Case Western Reserve University.
National Manufacturers Association (1990). *Statement by Richard Siebert,* Vice President, August, 1990.

O'Connor, D. (1994). *Managing the Environment with Rapid Industrialization: Lessons from the East Asian Experience*. OECD, Paris.
O'Donnell, G. and P. C. Schmitter (1989). *Transitions form Authoritarian Rule: Tentative Conclusions about Uncertain Democracies*. Baltimore: The Johns Hopkins University Press.
O'Leary, R., and L. B. Bingham (2003). *The promise and performance of environmental conflict resolution.* Resources for the Future.
Ostrom, E. (1990). *Governing the Commons: The Evolution of Institutions for Collective Action*. Cambridge, MA: Cambridge University Press.
Ozawa, C. P. (1991). *Recasting science: Consensual procedures*. Boulder, CO: Westview Press.
Park, C. W. (2000). Legislative-Executive Relations and Legislative Reform. In L.S. Diamond, and Shin, Doh Chull, Eds. *Institutional Reform and Democratic Consolidation in Korea*. California: Hoover Institution Press.
Payne, M. J., Daniel Zovatto G., Fernando Carrillo Florez and Andres Allamand Zavala (2002). *Democracies in Development: Politics and Reform in Latin America.* Inter-American Development Bank.
Polsby, N. (1984). *Political Innovation in America: The Politics of Policy Initiation.* New Haven, CT: Yale University Press.
Portney, P. R. (1990). Air Pollution policy. In Paul R. Portney, Ed. *Public Policies for Environmental Protection.* Washington, D.C.: Resources for the Future.
Renn, Ortwin, Thomas Webler, and Peter Wiedemann (1995). *Fairness and Competence in Public participation: Evaluating Models for Environmental Discourse*. Boston: Kluwer Academic Press.
Ripley, R. B. (1996). Congress and Clean Air: The Issue of Enforcement, 1963. In Frederick N. Cleaveland and associates, Eds. *Congress and Urban Problems*. Washington, D.C.; Brookings.
Rose, R. (1993). *Lesson-Drawing in Public Policy: A Guide to Learning Across Time and Space.* Chatham, NJ: Chatham House.
Rose-Ackerman, S. (1981). 'Does Federalism Matter? Political choice in a federal republic." *Journal of Political economy* **89**: 152-65.
Rose-Ackerman, S. (1994). "American Administrative Law Under Siege: Is Germany a Model?" **107** *Harvard Law Review* 1279, 1981.
Rossi, J. (1997). "Participation Run Amok: The Costs of Mass Participation for Deliberative Agency Decisionmaking." **92** *Northwestern University Law Review* 173.
Ruckelshaus, William D. (1985). "Environmental Protection: A Brief History of the Environmental Movement in America and the Implications Abroad." *Environmental Law* **15**: 455-463.
Ruckelshaus, William. D. (1998). "Stepping Stones." *Environmental Forum* **15**(2): 30-36.
Sabatier, P. (1988). "An Advocacy Coalition Framework of Policy Change and the Role of Policy-Oriented Learning Therein." *Policy Science* **21**: 141-142.
Sabatier, P. (1991). "Political Science and Public Policy." *PS: Political Science and Politics* **24**: 144-156.
Sabatier, P. (1999). *Theories of the Policy Process*. Boulder, CO: Westview Press.

Sabatier, P., and H. Jenkins-Smith (1993). *Policy Change and Learning: An Advocacy Coalition Approach.* Boulder, CO: Westview Press.
Sabel, Charles, Karkkainen, Bradley, and Archon Fung (2000). *Beyond Backyard Environmentalism.* Boston: Beacon Press.
Schattschneider, E. E. (1960). *The Semi-Sovereign People.* New York: Holt, Rinehart and Winston.
Schneider, M., and Teske, P., and Micheal Mintrom (1995). *Public Entrepreneurs: Agents for Change in American Government.* Princeton: Princeton University Press.
Schreurs, Miranda A. (2002). "Democratic Transition and Environmental Civil Society: Japan and South Korea Compared." *The Good Society* **11**(2): 57-64.
SEI (Stockholm Environment Institute) (1999). *Costs and Strategies presented by Industry during the Negotiation of Environmental Regulations.* Prepared for the Swedish Ministry of the Environment. Sweden.
Seldon, T. M., and D. Song (1994). "Environmental Quality and Development: Is there a Kuznets Curve for Air Pollution Emissions?" *Journal of Environmental Economics and Management* **27**: 147-162.
Shafik, N. (1994). "Economic Development and Environmental Quality: An Econometric Analysis." *Oxford Economic Papers* **46**: 757-73.
Shin, D. C. (1999). *Mass politics and culture in democratizing Korea.* Cambridge: Cambridge University Press.
Shin, D. C. (2000). The Evolution of Popular Support for Democracy during Kim, Young Sam's Government. In L. S. Diamond, and D. C. Shin, Eds. *Institutional Reform and Democratic Consolidation in Korea.* Stanford: Hoover Institute Press.
Shutkin, William (2000). *The Land That Could Be: Environmentalism and Democracy in the Twenty-First Century.* Cambridge: MIT Press.
Siegler, E. (1997). "Regulatory Negotiations and Other Rulemaking Processes: Strengths and Weaknesses from an Industry Viewpoint." **46** Duke. L. J. 1429, 1436.
Snyder, S. (1999). "Patterns of Negotiation in a South Korean Cultural Context." *Asian Survey* **39**(3): 394-417.
Society of Professionals in Dispute Resolution (1997). *Best Practices for Government Agencies: Guidelines for Using Collaborative Agreement-Seeking Processes.* Washington, DC: Society of Professionals in Dispute Resolution.
Stewart, Richard B. (1975). "The Reform of American Administrative Law." *Harvard Law Review* **88**(8): 1667-1813.
Sunstein, Cass (1990). *After the Rights Revolution: Reconceiving the Regulatory State.* Cambridge: Harvard University Press.
Susskind, L. (2006). Arguing, Bargaining, and Getting Agreement. In M. Rein, R. Goodin, and M. Moran, Eds. *Oxford Handbook of Public Policy.* London, UK: Oxford University Press.
Susskind, L., and G. McMahon (1985). "Theory and Practice of Negotiated Rulemaking." *Yale Journal on Regulation* **3**: 133-165.
Susskind, L., and J. Cruikshank (1987). *Breaking the impasse: Consensual approaches to resolving public disputes.* New York: Basic Books.
Susskind, L., and P. Field (1996). *Dealing with angry public: The mutual gains approach*

to resolving disputes. New York: The free press.
Susskind, L., McKearnen, S., and J. Thomas-Lamar (Eds). (1999). *The Consensus building handbook: A comprehensive guide to reaching agreement*. Thousand Oaks, CA: Sage Publications.
Tang, Xiaoyan (2004). The Characteristics of Urban Air Pollution in China. In *Urbanization, Energy, and Air Pollution in China: The Challenges Ahead -- Proceedings of a Symposium*. National Academy Press: 47-54.
Teişman, G. R. (2000). "Models for research into decision-making processes: On phases, streams and decision-making rounds." *Public Administration* **78**(4): 937-956.
United Nations (UN) (1996). *World Population Projects, 1950-2050*. United Nations Population Division. New York.
United Nations Environment Program (UNEP) (2005). *Asia Pacific Lead Matrix*. Partnership for Clean Fuels and Vehicles, UNEP.
Vogel, D. (1986). *National Styles of Regulation: Environmental Policy in Great Britain and the United States*. Cornel University Press, Ithaca.
Wald, P. (1997). "ADR and the Courts: An Update." **46** *Duke L. J.* 1445, 1470.
Weber, Edward P., and Anne M. Khademian (1997). "From Agitation to Collaboration: Clearing the Air through Negotiation." *Public Administration Review* **57**(5): 396-410.
Weidner, H. (Ed.) (1998). *Alternative Dispute Resolution in Environmental Conflicts: Experiences in 12 countries*. Berlin: edition sigma.
Weiss, C. (1977). *Using Social Research in Public Policy Making*. Lexington, MA: Lexington Books.
Weiss, C. (1979). "The Many Meanings of Research Unitization." *Public Administration Review* 425-431.
Werhan, K. (1996). "Delegalizing Administrative Law." *University of Illinois Law Review* **2**: 423.
Wondolleck, J. M., and S. L. Yaffee (2000). *Making Collaboration Work: Lessons from Innovation in Natural Resource Management*. Washington, DC: Island Press.
Woo-Cumings, M. (1995). The Korean Bureaucratic State: Historical Legacies and comparative Perspectives. In J. Cotton, Ed. *Politics and Policy In the New Korean State: From Roh Tae-Woo to Kim Young Sam*. New York: St. Martin's Press.
World Economic Forum (2002). *Environmental Sustainability Index 2002*. Geneva: World Economic Forum.
World Economic Forum (2005). *2005 Environmental Sustainability Index: Benchmarking National Environmental Stewardship*. Geneva: World Economic Forum.
World Health Organization (WHO) (2002). *The World Health Report 2002: Reducing risks, Promoting healthy life*. Geneva. Switzerland.
Yin, R. K. (2003). *Case Study Research: Design and Methods*. Thousand Oaks: Sage.
Youm, K. H. (1994). "Press Freedom and Judicial Review in South Korea." *Stanford Journal of International Law*.